1988
ANNUAL REPORT

Environment Council of Alberta

Alberta
ENVIRONMENT COUNCIL OF ALBERTA

18

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Environment Council of Alberta

February 1989

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ECA 89-AR

LETTER OF TRANSMITTAL

Lieutenant-Governor in Council
Legislative Building
Edmonton, Alberta

Honorable Dr. Ian Reid
Minister, Department of Environment
420 Legislative Building
Edmonton, Alberta

Sirs:

We are pleased to submit to you the Annual Report for the Environment Council of Alberta for the year 1988, as required by Section 7(1)(h)(i) of The Environment Council Act.

Respectfully submitted,

Archie Landals
Director, Liaison
Environment Council of Alberta

Dave Buchwald
Director, Research
Environment Council of Alberta

Al Giacomazzi
Director, Administration
Environment Council of Alberta

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1. POLICY AND PROGRAM REVIEW

1.1 ALBERTA CONSERVATION STRATEGY

The Alberta Conservation Strategy project continued to grow during 1988. Staff assisted in the preparation, editing, and distribution of background discussion papers; organization of meetings and workshops; and liaison with other departments and organizations. To the current 17 sectors, two more were added. Background papers have been or are being prepared for all of these, and another sector was under consideration at the end of the year.

A major part of the Alberta Conservation Strategy project continued to be an examination of current environmental policies and programs as they relate to the goal of sustainable development. Meetings and discussions with staff members of various government departments and agencies held throughout the year assisted in compiling pertinent information and maintaining communications channels. With the background discussion papers progressing well at the end of 1988, work began on the draft conservation strategy and companion documents.

By the end of 1988, six more discussion papers had been published and several others were at or near the final editing stages. Those published in 1988 were:

Environment By Design: The Urban Place In Alberta

Tourism In Alberta

Energy Conservation: A Goal for Albertans?

Agricultural Considerations For Today and Tomorrow

Renewable Energy: The Power And The Potential

Dinosaurs & Distant Drums: The Future for Alberta's Heritage Resources

1.2 TEN YEARS OF PUBLICATIONS

1988 is the tenth full year of operations since the Environment Conservation Authority Act was repealed and replaced by the Environment Council of Alberta Act. This annual report provides an opportunity to present an overview of the Council's policy and program review activities during that time span.

Policy and program review by Council is carried out through public hearings, staff reports, consultant reports, and reports prepared by other agencies on the ECA's behalf. The Public Advisory Committees (PAC) to the ECA and Government also provide a review function primarily through their regular meetings. In recent years, the Alberta Conservation Strategy project has also generated reports from PAC and its associated groups. The main product of the various review processes is information, generally in the form of a report. These reports are usually directed to the public, to the Minister of Environment, or to Cabinet. All ECA reports are made available to the public without charge.

ECA legislation tends to group environment conservation matters in five categories (Sec. 2 of the Act):

a) the conservation, management and utilization of natural resources

b) pollution control

c) public health, particularly noise

d) economic matters that relate to the above, and

e) legislation or administrative matters relating to natural resources.

Since 1978, 103 documents have been produced (see Appendix A). When these documents are classified under the categories identified

above, the recurring areas of investigation in ECA publications become apparent. Most reports usually address more than one of the classification categories.

Most of the ECA's published titles relate to public hearings. The number of titles published since 1978 for each hearing follows:

	No. of Titles
Maintenance and expansion of the agricultural land base	34
Noise in Alberta	11
Recycling in Alberta	8
Hazardous waste management	6
Water management in the Oldman River basin	2
Environmental effects of forestry operations	1
Total	62

Another area which is becoming a dominant publication area is the Alberta Conservation Strategy project. This potential hearing topic had 14 related publications plus an information kit available by the end of 1988.

The demand for ECA publications seems substantial — about 210,000 have been distributed in the last decade. Until recently, the distribution of a report ended when the stock was depleted. However, in the last 18 months the ECA has established desktop publication capability, which, when combined with high-speed copying, enables us to maintain a "just in time" inventory of recent publications.

Reports are often prepared in both technical and summary formats. Usually three technical reports are distributed for every five summary reports. The combined distribution for hearing reports produced during and since 1978 is as follows:

Hearing	Reports	Distributed	Average
Agriculture	34	76,771	2,258
Noise	11	40,045	3,640
Recycling	8	22,748	2,844
Hazardous Waste	6	14,941	2,490
Water Management	2	7,500	3,750
Forestry Operations	1	6,000	6,000

In addition, 11,000 reports have already been distributed for the Alberta Conservation Strategy project, led by the *Prospectus* at just under 4,000.

The individual "Top Ten" reports are listed below. *Noise in the Workplace* (1981) is eleventh at 4,000.

Top Ten Environment Council Publications

1. 9,060 *Maintaining and Expanding The Agricultural Land Base in Alberta: Summary Report and Recommendations* (1984)
2. 5,441 *Hazardous Waste Management in Alberta: Report and Recommendations* (1980)
3. 5,000 *Management of Water Resources Within The Oldman River Basin: Report and Recommendations* (1979)
4. 5,000 *Management of Water Resources Within The Oldman River Basin: Terms of Reference and Background Information* (1979)
5. 4,819 *Recycling of Waste in Alberta: Summary Report and Recommendations* (1987)
6. 4,500 *The Environmental Effects of Forestry Operations in Alberta: Report and Recommendations* (1979)
7. 4,500 *The Management and Disposal of Hazardous Waste: The Administration and Regulation of Hazardous Wastes* (1980)
8. 4,337 *Noise in the Human Environment* Vol. 1 (1979)
9. 4,280 *Economic Aspects of Noise in Alberta* (1980)
10. 4,220 *Noise is a Health Hazard* (1980)

2. PUBLIC HEARINGS

2.1 RECYCLING

The *Report and Recommendations* on recycling of waste in Alberta was completed and released to the public in May, 1987. The Environment Council is still viewed by the public as a valuable source of information about recycling activities in Alberta. As a result, the Council responds to frequent phone calls requesting information about recycling activities and opportunities. Often these callers also want copies of the recycling reports the ECA produced for the public hearings, and distribution rates for these reports continued to be high in 1988 (see below).

In addition to distributing reports, during 1988, the ECA:

1) made a presentation to the Recycling Council of Ontario on economic aspects of recycling in Alberta,
2) participated in a meeting sponsored by the City of Edmonton on how best to encourage a recycling industry in the city,
3) provided our display and publications to several recycling-related events in the province,
4) prepared an article on recycling for the Edmonton Social Planning Council,
5) provided the recycling computer model to a number of organizations and municipalities,
6) provided the display and publications to the Recycling Council of Alberta Edmonton annual meeting, and
7) assisted in Recycling Council of Alberta mailouts.

It should be noted that the ECA was very pleased to receive the November 10 news release from the Minister's office concerning expansion and simplification of the beverage container system. Several of the recommendations from the ECA's *Report and Recommendations* on recycling in Alberta are being implemented as of January 16, and March 31, 1989.

Distribution of Recycling Reports, 1988

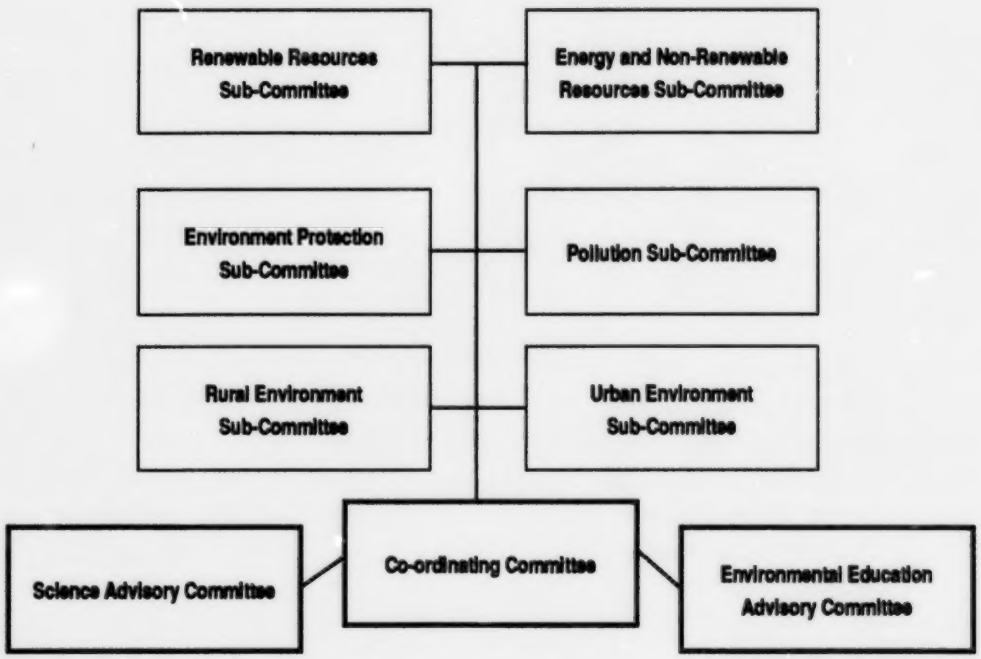
Recycling of Waste in Alberta: Summary Report and Recommendations	568
Recycling of Waste in Alberta: Technical Report and Recommendations	467
Municipal Solid Waste — Alberta's Untapped Resource?	545
A Social Perspective of Recycling in Alberta	414
Resource Recycling in Alberta	476
Garbage to Gold? Issues and Opportunities: Terms of Reference and Background Information	357
Economic Barriers to Recycling	472
The Use of Muncipal Waste as Fuel	317
Bibliography of Recycling	179
Total	3,795
Total 1985 – 1988	22,748

3. PUBLIC ADVISORY COMMITTEES

The Public Advisory Committees are the volunteer arm of the Environment Council and serve as a major interface between the Government of Alberta and its citizens with regard to environmental matters. The Public Advisory Committees represent the broadest possible cross section of non-governmental organizations with an interest in the environment, including chambers of commerce, academics, and industrial associations, as well as natural history groups. The Public Advisory Committees identify and consider emergent environmental issues and problems; they serve as an early warning system, express public concern, and provide advice to government. Public input into the government decision-making process ensures a high degree of credibility and public confidence in government programs and policies. The effective communication networks of the member organizations of the advisory committees are an important mechanism used to enhance the general public's awareness of government initiatives.

The operating guidelines of the Public Advisory Committees to the Environment Council of Alberta are contained in the *Roles Document*, which, in consultation with the Minister, was revised and updated in September, 1987.

3.1 ORGANIZATION OF THE PUBLIC ADVISORY COMMITTEES



3.2 MEMBERSHIP

The **Public Environmental Advisory Committee** is made up of affiliated and unaffiliated members. Affiliated members are nominees of various organizations, associations, and institutions. These groups have a demonstrated interest in the environment, represent a significant constituency, and are reasonably provincial in scope. Unaffiliated members are individuals whose special capabilities are recognized by the Environment Council to be of exceptional value. They are usually long-term Public Advisory Committee members who no longer represent a specific group. The current roster stands as follows:

132 member organizations
117 representatives currently appointed
35 alternate members
19 unaffiliated members

The **Environmental Education Advisory Committee** is composed of professional educators and communicators from government, broadcasting and related industries, academic institutions, the teaching profession, and the public at large. Currently, 19 individuals are members.

The **Science Advisory Committee** is a multidisciplinary group, composed of scientists drawn from academic institutions, government, scientific agencies, and industry. Twenty-two members are formally appointed at this time.

As of the end of the year, 212 dedicated citizens are formally appointed to the Public Advisory Committees, an increase of seven since the end of last year. The individuals who serve on the various committees and sub-committees are listed in the respective chairman's report, and in Appendix B.

3.3 CHAIRMEN'S REPORTS

3.3.1 CO-ORDINATING COMMITTEE

...responsible for the overall co-ordination and efficient functioning of the three Public Advisory Committees.

Report from the Chairman — Mrs. Jean Sloan

This year has shown a marked change in the way the world views the dangers to the environment. This not only makes our job easier but more urgent. As such it gives us a much greater chance of making an impact.

The work of the Sub-Committees on the Conservation Strategy papers is progressing nicely. All of the Sub-Committees are now actively involved, since Pollution recently embarked on preparing a background paper on health promotion.

However, things will be at a standstill for some time unless Dr. Reid calls for public hearings as quickly as possible. Alberta is in the forefront with environmental action, as evidenced by the hazardous (special) waste facility at Swan Hills and I certainly commend them for that. It is a world-class operation and, once the collection network is in place, it will be the best effort made to clean up the whole province.

The loss of Alistair in the spring was felt by all of us. His strong support and well-documented critiques were important in keeping the issues alive and in the forefront. We have managed without a replacement for the year and I must admit that gives me some concern. It would be a tragedy to have PAC fall by the wayside and I perceive that as a danger without having a Chief Executive Officer.

Dr. Reid recently informed me that action is once again underway on the issue of environmental law enforcement. Ms. Jillian Flett has been appointed Head of the Compliance Branch. We congratulate her on this crucial appointment and anxiously await further action.

The province has started on the re-use, reclaim, re-cycle road and that is certainly a step ahead. With the NIMBY syndrome, there is still some resistance and this must be addressed. The need for the new landfill site for Edmonton certainly helped that. We can only assume that the provincial government will proceed along recycle routes with all due speed. Of course, the changes required to the Clean Air and Clean Water Acts and environ-

mental enforcement will speed the movement along.

The cutbacks in funding have hampered our activity somewhat, but we have streamlined our operation to the extent that we are operating with a bare minimum of meetings. Any other cutbacks would certainly damage the effectiveness of PAC. This would certainly prove to be a false economy.

Looking back over 1988, I find it very difficult to have to quit in the middle of some of the issues we have been working on and would suggest that a one-year Chairmanship is not sufficient and anyone wishing to continue on should be able to allow their name to stand for re-election. This perhaps can be addressed in the coming year. Needless to say, I have enjoyed the past year enormously. To be able to fight for things you deem important is probably one of the great pleasures of life. Thank you for having me, and my deepest congratulations to Lochan. I hope he enjoys it all just half as much as I have. PAC is unique and requires all the dedication we can sum up.

Mrs. Jean Sloan
Chairman
Co-ordinating Committee

Members of the Co-ordinating Committee

Mrs. J. Sloan	— Chairman
Dr. L. Bakshi	— Vice-Chairperson
Mrs. M. Posey	— Past Chairperson

Sub-Committee Chairpersons

Mr. G. Stewart	— Energy and Non-Renewable Resources
Dr. M. Muc	— Environment Protection
Mr. W. Koning	— Pollution
Mrs. M. Posey	— Renewable Resources
Ms. M.J. Turnell	— Rural Environment
Mr. K. Blom	— Urban Environment
Mr. B. Batycky	— Interim Chairperson (January — June) Environmental Education Advisory Committee
Dr. W. Samiroden	— Interim Chairperson (September — December) Environmental Education Advisory Committee
Dr. S. Dalton	— Science Advisory Committee

3.3.2 PUBLIC ENVIRONMENTAL ADVISORY COMMITTEE

...acts as a barometer of public opinion and concern on environmental issues. As an environmental advocate it provides ongoing advice to the Environment Council and government departments on emerging issues as well as feedback on various programs and policies. Communication networks help to enhance general public understanding of government initiatives.

3.3.2.1 Energy and Non-Renewable Resources Sub-Committee

...efficient and environmentally responsible use of energy and non-renewable resources to sustain the long-term economy of Alberta, with a gradual transition to a greater reliance on renewable resources.

Report from the Chairman — Mr. George Stewart

The Sub-Committee prepared a submission for the "Energy Options" initiative of the Hon. Marcel Masse, Federal Minister of Energy, Mines and Resources. The submission emphasized alternative energy, energy conservation, and impact assessment. The final "Energy Options" report incorporated strong support for energy and environmental conservation.

At one of its meetings, the Sub-Committee's search for alternative energies led to a review of hydrogen as a fuel. While the concept appears to be in its infancy, there is significant research underway justifying Sub-Committee follow-up.

Alberta Conservation Strategy development consumed considerable Sub-Committee time in that no less than six sectoral papers have been, or are being, prepared under the chairmanship of Sub-Committee members. The efforts of John

Lilley in preparation of these documents are applauded.

Early in the year, the Sub-Committee began campaigning for royalty relief for petroleum operators who voluntarily undertake sulphur recovery in excess of that required by government. As the year ends the ERCB's recently announced Sulphur Recovery Guidelines essentially legislate such royalty reduction.

The Sub-Committee was interested in the dilemma faced in populated areas by petroleum operators, particularly of sour gas properties. The ERCB met with the Sub-Committee on this subject and follow-up is intended, particularly in the matter of reserves which must be forgone due to development restrictions. The Sub-Committee participated in a controversial sour gas well hearing in the Calgary area, proposing the document *Resolving Conflict* prepared under Sub-Committee auspices as an aid to overcoming problems.

The Sub-Committee was concerned that an oil spill could occur in Alberta similar to a major spill that occurred in Pennsylvania. A review was presented by the Prairie Petroleum Association — Marketing that strongly suggested standards and conditions are so different in the two areas that a similar event is most unlikely here. We are awaiting further data justifying this conclusion.

During the year the Sub-Committee dealt unsuccessfully with the electrical utilities in an attempt to modify operation of hydro dams. The Committee's concern was potential damage to fish habitat.

The interest and participation of Sub-Committee members and the assistance of ECA staff is gratefully acknowledged.

Mr. George Stewart
Chairman
Energy and Non-Renewable Resources Sub-Committee

Members of the Energy and Non-Renewable Resources Sub-Committee

Chairman

Mr. G. Stewart	— Unaffiliated
Mr. D. Broughton	— Unaffiliated
Dr. W. Buchta*	— NAIT
Dr. R. Gehrke	— Alberta Chiropractic Association
Mrs. H. Heacock	— Calgary Local Council of Women
Mr. J. Hirsch	— City of Medicine Hat
Ms. J. Hodgson	— Calgary Chamber of Commerce
Mrs. B. Hunter	— Consumers' Association of Canada
Mr. A. Kennedy*	— Coal Association of Canada
Mr. R.G. Kuhn*	— Save Tomorrow Oppose Pollution (STOP)
Mr. P. Lulman	— Coal Association of Canada
Mr. D. Moffat	— Alberta Federation of Labour
Mrs. A. Parkinson	— Community Planning Association of Alberta
Mrs. B. Paschen	— Unaffiliated
Mr. G. Paschen	— Archaeological Society of Alberta
Mr. B. Peel	— Electric Utility Planning Council
Mr. D. Porter	— Canadian Petroleum Association
Dr. J.E. Rapson	— Solar Energy Society (Calgary Chapter)
Dr. W.A. Ross	— University of Calgary
Mr. J.E. Staples	— Association of Professional Engineers, Geologists and Geophysicists of Alberta
Mr. B. Staszenski	— Save Tomorrow Oppose Pollution (STOP)
Mrs. M. Stephenson	— Alberta School Trustees Association
Mr. N. White*	— Unaffiliated

* No longer on Sub-Committee

EEAC Liaison — Dr. J. Godfrey

SAC Liaison — Dr. D. Kvill

3.3.2.2 Environment Protection Sub-Committee

...preservation of native species and natural environments for their intrinsic values, as well as the conservation of these resources for outdoor recreation and tourism.

Report from the Chairperson — Dr. Michael Muc

The Committee has continued to address its mandate as outlined in the Terms of Reference — preservation of native species and natural environments for their intrinsic values, as well as the conservation of these resources for outdoor recreation and tourism. Participation at meetings has been extremely strong (13 to 17 members per meeting) and the workload has been enthusiastically shared by a broad sector of the membership.

To gain a better perspective of various environmentally related issues, various speakers have been invited to make presentations in designated subject areas. Over the past year these have included:

1) Grazing Lease Conversion Policy (Jack Campbell and Janet Koper)
2) Rare and Endangered Animal and Plant Species in Alberta (Miles Scott-Brown and Cleve Wershler)
3) Oldman Dam Mitigation — Wildlife and Cultural Aspects (Jeff Green, Ron Middleton, Brian Ronaghan, Martin Magne)
4) Establishment of a Conservation — Outdoor Recreation System in Alberta (Barry Mitchelson)
5) Government Perspective on Wildlife in Alberta — Present and Future (Les Cooke).

Requests were also made to the Committee for an opportunity to present the following information:

1) Wild West Program by Dave Leman, representative of World Wildlife Fund Canada. The program deals with endangered and threatened species of the Aspen Parkland and Grasslands of Western Canada. The information was discussed accordingly but no direct action was taken.
2) Nestow Landfill Site Hazards by Robert Gouin, Director of The Robert Gouin Foundation. Information was presented on the potential groundwater contamination and fire hazard to adjacent natural areas associated with a modified sanitary landfill site at Nestow. The Committee expressed its concerns to the appropriate County (Municipal District of Westlock) and provincial (Forestry, Lands and Wildlife; Environment) agencies.

The Committee also presented (by Miles Scott-Brown) a brief to the Wilderness Areas and Ecological Reserves Advisory Committee. It supported the current Ecological Reserves legislation and listed seven candidate areas for the ecological reserves program.

Major sector report contributions have been made to the Alberta Conservation Strategy in the areas of:

1) Parks (Guy Swinnerton)
2) Tourism (Pam Wight)
3) Wetlands (Robyn Usher)

Committee members were involved in reviewing the progress and draft copies of the above documents and supported the outlined principles.

The Committee also addressed, through extensive internal deliberation and correspondence with appropriate government agencies, the following matters:

1) Champion Forest Products pulp mill expansion at Hinton and Peace River
2) Oil company drilling at Whitney Creek and Prairie Bluff
3) Ecological reserves in Alberta
4) Long-range developments in Alberta's national parks
5) Integrated resource management planning
6) Management of access to Crown lands
7) Minimum flows in Alberta's rivers
8) Kimiwan Lake water levels and lake shore habitat
9) Environmental impacts of provincial road openings and development

10) Big Lake wildlife habitat and natural areas development

11) Grazing lease conversion policy

12) Impact of the Oldman Dam on fish and wildlife habitat

13) Interprovincial parks concept.

Various Committee members provided background information and leadership in discussions of specific issues and were instrumental in the preparation of draft documents directed to appropriate government departments. Environment Council staff provided valuable insights, direction, and support in the effective analysis of complex environmental issues.

It has been a personal pleasure to work with such a dedicated and enthusiastic group of individuals. I wish to share with them all the credit for our Committee's efforts and its associated accomplishments. My deepest thanks to everyone associated with the Committee's proceedings and thanks for the consideration and support extended to me as Chairperson.

Dr. Michael Muc
Chairperson
Environment Protection Sub-Committee

Members of the Environment Protection Sub-Committee

Chairperson

Dr. M. Muc	— City of Camrose
Mrs. S. Abercrombie	— Unaffiliated
Ms. B. Beswick	— Canadian Parks and Wilderness Society (Banff/ Calgary Chapter)
Mr. C. Blackburn, Jr.	— Foothills Protective Association
Mrs. D. Broadbent	— Unaffiliated
Ms. E. Butler	— Edmonton Local Council of Women
Mr. B. Calverley	— Ducks Unlimited Canada
Mr. T. Code	— The Alpine Club of Canada
Mr. A.C. Dunkley	— Unaffiliated
Mr. G. Fabris	— Red Deer College
Mr. H. Fauser	— Alberta Fish and Game Association
Mr. M. Henderson	— University of Alberta
Dr. R. Holmberg	— Athabasca University
Ms. B. MacCallum+	— The Alpine Club of Canada
Mrs. J. Meikle	— YWCA
Mrs. M. Newton	— Women of Unifarm
Mr. D. Penner+	— Alberta Society of Professional Biologists
Mr. H. Pharis	— Health Unit Association of Alberta
Mr. R.M. Richardson	— Unaffiliated
Mrs. R. Robinson*	— YWCA
Dr. R. Scace	— Unaffiliated
Mr. C. Schroeder*	— Swift Fox Conservation Society
Mr. M. Scott-Brown	— Alberta Society of Professional Biologists
Mr. G.R. Stewart	— Southern Alberta Environmental Group
Dr. G. Swinnerton	— Canadian Parks and Wilderness Society (Edmonton Chapter)
Ms. R. Usher	— Canadian Society of Environmental Biologists and Wildlife Society of Canada
Mrs. P. Wight	— City of Edmonton
Mr. H. Zenger	— Sierra Club of Alberta

* No longer on Sub-Committee

\+ Attended Sub-Committee as Alternate

EEAC Liaison — Mrs. M. Bailey

SAC Liaison — Dr. T. Veeman

3.3.2.3 Pollution Sub-Committee

...the impact of human activities on the quality of air, water and soil and the associated health effects on plants, animals and man.

Report from the Chairperson — Mr. Wendell Koning

During 1988 the Pollution Sub-Committee focussed their attention towards the following areas:

1) Improper disposal of pesticide containers; with reference to the improper burning of these containers in a farmer's field near Stettler. We are disappointed that there is still no real solution for pesticide container disposal in Alberta and will continue to seek improvements in 1989.

2) Dioxins and other chlorinated organics and mercury downstream from pulp mill outfalls. We are very concerned that fish in the vicinity of bleached kraft pulp mill operations are absorbing levels of the pulp mill contaminants that make them unsafe for human consumption. We feel that Alberta Environment needs to monitor this area more closely.

3) Methyl mercury contamination of fish and drinking water due to man-made surface water impoundments, with reference to the proposed Oldman Dam.

4) Sour gas developments and sulphur recovery requirements. Sulphur recovery requirements have been upgraded this year; a good step in the right direction!

5) Acid-forming emissions in Alberta. We feel this is an ongoing, important concern in Alberta.

6) The greenhouse effect — the need for immediate dialogue and long-range planning for this province.

In addition, we monitored and provided input to the following documents:

1) *Action Plan for Environmental Law Enforcement in Alberta.* We support the Action Plan in general and have provided a number of changes and additions for improvements to the plan. Menno Homan, a member of this PAC Sub-Committee, has been recommended to sit on the steering committee to implement this plan.

2) *Report of the National Task Force on the Environment and the Economy.* This Task Force has brought together industry, government, academic institutions and other non-government organizations committed to promoting solid economic activity within a sound environmental framework. As such we support the report very much, in particular the plan for "round tables" for decision making. We are concerned, however, that the Alberta government is lagging in its implementation of the Task Force recommendations to which it also was a signatory.

3) We continued to monitor Environment Canada's proposed Environment Protection Act.

4) Alberta Conservation Strategy: general health. Shirley Henderson, Norm Carlson, and Ron Dovell will be the main contributors to this paper.

We benefitted from presentations or visits from the following:

1) Dr. L. Lillie and Dr. M. Wilson from the Alberta Environmental Centre, Vegreville presented their findings on the toxicity of bleached kraft pulp mill effluent. Rapidly expanding pulp mill activity in northern Alberta presents a need for sound water quality management.

2) Rocky and Anne Notnes, Hinton, representing the Alberta Coalition for Forest Spray Alternatives, and Mr. Brad Wylynko, representing Toxics Watch, presented their concerns related to the Daishowa pulp mill now under construction in the Peace River area. The Pollution Sub-Committee concludes that timber harvesting/forest management is an area that requires much more public input, preferably on a year-by-year basis.

3) Mr. P. Whitfield, Environment Canada, spoke on goals and data collection designs for water quality monitoring. According to Alistair Crerar, the departing Chief Executive Officer of the ECA, one of the most important environmental issues facing Alberta is the area of water quality protection. As a PAC Sub-Committee, we feel the same, and therefore Mr. Whitfield's presentation was timely.

4) Mr. B. MacLock and Mr. F. Schulte, Alberta Environment, provided information concerning "reach-specific water quality guidelines," a system for managing surface waters. This system may or may not be a

good management tool. The concern of the Pollution Sub-Committee is that full public participation is first needed to decide if and how this system ought to be implemented in Alberta.

5) Mr. K. Simpson and Mr. L. Mick, Alberta Special Waste Management Corporation, spoke concerning the Swan Hills hazardous waste treatment facility, in particular the difficulties they are finding with siting waste transfer stations in other areas of the province.

In 1987, and continuing in 1988, we established four working groups having the following titles: Air Quality, Toxics/Waste Management, Environment Protection, and Water Quality. These sub-groups met for a period of approximately 45 minutes during regular meetings, as the need arose. These work groups have proven to be very successful, allowing us to address a greater number of issues than we otherwise could.

Gordon Merrick, a long-time member of the Pollution Sub-Committee, retired to Vancouver Island. His involvement was much appreciated. In addition, Gordon was instrumental in organizing a Toxic Chemicals Workshop in Lethbridge in July, 1987. Ron Dovell, representing the Alberta Fish and Game Association, and Farooq Siddiqui, representing NAIT, became new and welcome members during 1988.

Members of the Pollution Sub-Committee have been highly motivated and active during 1988. It has been a pleasure and an excellent experience for me to associate with them during this term. As well, many thanks to a most helpful and most talented administrative and research staff at the ECA.

Mr. Wendell Koning
Chairperson
Pollution Sub-Committee

Members of the Pollution Sub-Committee

Chairperson

Mr. W. Koning — Citizens for Public Justice

Mr. M. Andresen — Fort Saskatchewan Regional Industrial Association

Mrs. G. Bako* — Alberta Cancer Board

Mr. N. Carlson — City of Wetaskiwin

Dr. M.H. Chaudhry — Lakeland College - Vermilion Campus

Mr. R. Dovell — Alberta Fish and Game Association

Mr. G. Ferguson — Cascade Society of Mount Royal College

Dr. R.J. Fessenden* — Alberta Research Council

Mr. D. Fraser* — City of St. Albert

Mr. R. Gillespie — Strathcona Industrial Association

Ms. J. Hedenstrom — Unaffiliated

Mrs. S. Henderson — Alberta Association of Registered Nurses

Mr. T. Hodge — Alberta Public Health Association

Mr. M. Homan — SAIT

Mr. W. Irwin — Canadian Institute of Public Health Inspectors (Alberta Branch)

Dr. M. Kostuch — Unaffiliated

Mrs. D.J. Lewoniuk — Alberta Lung Association

Mr. H. Lillo — Energy Resources Conservation Board

Dr. M.J. MacQuarrie — Alberta Medical Association

Mr. G. Merrick* — Alberta Fish and Game Association

Mr. A. Metcalfe — Canadian Manufacturers' Association

Mr. D. Moffat* — Alberta Federation of Labour

Dr. R. Mutch — Medicine Hat College

Dr. P. Ramalingam — Canadian Union College

Mr. R. Romanetz — City of Drumheller

Mrs. J. Roschlaub — Alberta Pharmaceutical Association

Mr. W.K. Ross — Unaffiliated

Dr. F. Siddiqui — NAIT

Mr. D.R. Thomas — Law Society of Alberta

Dr. L. Wojtiw — Canadian Meteorological and Oceanographic Society

Mr. B. Worbets — Canadian Petroleum Association

* No longer on Sub-Committee

EEAC Liaison — Dr. W. Samiroden

SAC Liaison — Dr. R.K. Lane

3.3.2.4 Renewable Resources Sub-Committee

...sustainability of forests, water and wildlife resources.

Report from the Chair — Mrs. Maryhelen Posey

During 1988, the Renewable Resources Sub-Committee continued its focus on broad forest management issues, devoting two meetings to issues related to herbicide use and other methods of silviculture, especially research programs in this area. We were particularly impressed by a research program funded jointly by the governments of Canada and Alberta and involving interagency co-operation, and wrote to express our pleasure to the two Ministers with the hopes of extending and expanding such programs in the future.

Another major program concerned the extent of interagency co-operation in forest management in Alberta with special attention to fish and wildlife considerations. The Sub-Committee came away from this concerned that lack of staffing and funding makes a relatively well-designed process less than completely effective (and what else is new?) and that no standard mechanisms exist for public input to such processes (and again, what else is new?).

On the other hand, a presentation on the Alberta Breeding Bird Atlas Project offered us a view of the possibilities available when two levels of government, a public interest group and as many members of the public at large as can be encouraged to join, all co-operate. It was refreshing even for those of us who may not be able to participate as observers.

Also during this year, the issue of the Alberta Forest Products Association survey of Spring 1987 was finally dealt with in a meeting of the special committee from Renewable Resources with representatives of the Association and the research consultant who had designed the survey. While not all of the concerns the Sub-Committee had were resolved entirely, the major remaining ones relate to failures of communication which we hope all parties now appreciate well enough that in future they can be avoided.

The Sub-Committee continued to contribute to the development of the ACS, participating in the production and review of forestry, fish and wildlife, and bio-diversity papers and adding a wilderness paper to its list.

I should like to express my gratitude to the members of the Sub-Committee, especially Joan Snyder and Arden Rytz, for assistance in locating expert presentations, and Clark Fawcett as Vice-Chairman. In addition, the ECA staff, especially Brian Free, Archie Landals, Randy Pretty, and Ken Nelson, made it all possible.

Last, but scarcely least, the Renewable Resources Sub-Committee shared in the sorrow at losing Alistair Crerar as our leader, the pride and pleasure of his new appointment, and the hope that a new Chief Executive Officer will be appointed soon.

Mrs. Maryhelen Posey
Chair
Renewable Resources Sub-Committee

Members of the Renewable Resources Sub-Committee

Chair

Mrs. M. Posey	— Canadian Nature Federation
Mr. D. Appleby	— Cold Lake Community Advisory Committee
Mr. N. Barber	— Alberta Trappers' Association
Dr. W. Cox	— Alberta Veterinary Medical Association
Dr. B.P. Dancik	— Trout Unlimited Canada (Alberta Council)
Dr. D.K. Elton	— Canada West Foundation
Mr. C. Fawcett	— United Farmers of Alberta Co-operative Limited
Mrs. E. Friesen*	— Unifarm
Mr. H. Gardner	— Federation of Alberta Naturalists
Mr. T. Garner*	— Fairview College
Dr. A.F. Gerrow*	— Alberta Veterinary Medical Association
Mr. P. Herzog	— Lethbridge Community College
Mr. E. Kure	— Unaffiliated

Mr. S. Linington*	— Northwestern Fishing Co-op
Mr. D. Mallon	— Edmonton Chamber of Commerce
Ms. J. McLean-Hayden	— Alberta Wilderness Association
Mr. B. Meller*	— Lethbridge Community College
Mr. D. Porter*	— Canadian Petroleum Association
Mr. A. Rytz	— Alberta Forest Products Association
Ms. L. Sherren	— Alberta Snowmobile Association
Dr. J. Snyder	— Grande Prairie Regional College
Mr. D. Stiles	— Canadian Nature Federation
Mrs. J. Walter	— Unifarm
Mr. T. Williamson	— Canadian Institute of Forestry

* No longer on Sub-Committee

EEAC Liaison — Mr. I. Waugh

SAC Liaison — Dr. R. Swanson

3.3.2.5 Rural Environment Sub-Committee

> ...sustainability of the rural environment for agriculture, residential and recreation use and the wildlife it supports.

Report from the Chair — Ms. Mary Jane Turnell

The Rural Environment Sub-Committee, having completed its second year of proceedings, focused its attention on issues relating to soil degradation and soil management. A substantial portion of its agenda was dedicated to the formulation and completion of the Agriculture Sector Report for inclusion in the Alberta Conservation Strategy.

The Rural Environment Sub-Committee reached a consensus whereupon the eligibility for subsidies needs to be contingent upon the implementation and continued practice of environmentally acceptable soil management programs by the farming and ranching communities. Pursuant to this consensus, the Sub-Committee will continue to investigate and encourage the implementation of an industry-wide contingency policy. The Sub-Committee expressed concern about the current policy of the federal government subsidizing summerfallow, which is at odds with prudent soil management.

The Sub-Committee called for increased co-ordination among government departments and authority boards to encourage soil conservation and to ensure that the activities of these bodies are not at cross-purposes with respect to soil conservation in the issuance of subsidies and grants.

Issues raised and discussed:

1) Expressions of concern on the current policy of subsidizing summerfallow, which is at odds with prudent soil management.
2) Sub-Committee researched and compared soil conservation strategies, USDA Bill eligibility of subsidies, ties to soil conservation practices.
3) Issues of marginal land conversion were addressed and will continue to be monitored.
4) The Sub-Committee further expanded their perspective on other areas of concern in the rural environment: gas royalties and aquifer and water well contamination.

The Committee identified the lack of consensus between the provincial and the federal governments on the distribution mechanism for funds as a major obstacle that prevents a more representative proportion of funding being allocated to the Alberta farming community. The Sub-Committee was informed that, over the next three years, the federal government has budgeted $75 million for implementation of Soil Conservation Strategies and that, traditionally, Alberta has received a disproportionate amount of the funds which have been allocated to the prairie provinces.

Concerns were raised about the perceived lack of interdepartmental information and co-ordination on the availability and intent of the numerous grants and subsidies which are issued to the farming and ranching communities. It was acknowledged that often department members were disappointed in the lack of response from appropriate Ministers and authorities to the issues

raised. As a Sub-Committee, we will continue to pursue these matters.

The members of the Sub-Committee have expressed the need to further diversify and expand the Sub-Committee's sphere of reference to include other pressing issues of the rural environment. In response to this concern, the Sub-Committee has added the following to its agenda for the coming year's activities: the impact of free trade on the rural environment and the agriculture industry, the environmental issues of plant patenting — how plant patenting affects the agriculture and environment sectors — and the problem of landfill sites.

Several professionals were invited to inform the Sub-Committee of their organization's activities and to provide historical and technical information on a variety of environmental issues which impact on the rural community: Mr. A. Stewart, PFRA — Soil Conservation; Mr. J. Hermans, Alberta Agriculture — Soil Conservation; Mr. R. Stein, Alberta Research Council — Ground Water Resource Conflicts; and Dr. A. Szalay, University of Alberta — Plant Patenting.

The Sub-Committee would also like to thank the ECA staff — Mr. D. Buchwald, Ms. R. Pretty, Ms. K. Sanderson, and Mr. A. Landals — for their continued support and valued input.

Ms. Mary Jane Turnell
Chair
Rural Environment Sub-Committee

Members of the Rural Environment Sub-Committee

Chair

Ms. M.J. Turnell	— Academic Women's Association
Mr. J. Aplin	— Heavy Crude Council
Mr. H. Craig	— Western Barley Growers' Association
Dr. S. Dalton	— Concordia College
Mr. K. Gesell	— County of Strathcona
Mrs. H. Hallett	— Alberta Women's Institute
Mrs. A. Hendry	— Council of Alberta Rural Ratepayers' Association
Mr. R. Hill	— Olds College
Mr. E. Jarvis	— Western Stock Growers' Association
Mr. R. Jensen*	— Alberta Irrigation Projects Association
Mr. A. Kolk	— Christian Farmers Federation
Mr. G. Miller	— Alberta Association of Municipal Districts and Counties
Mrs. S. Nelson Pier	— Alberta Conservation Tillage Society
Mr. W.M. Norris	— Dryland Salinity Control Association
Mr. H. Patching	— Alberta Wheat Pool
Mr. R. Renwick	— Alberta Irrigation Projects Association
Mr. G. Shaw	— Alberta Institute of Agrologists
Mr. J. Shemanchuk	— Entomological Society of Alberta
Mr. R. Thirnbeck	— Mount Royal College
Dr. L.W. Turchenek	— Alberta Research Council
Dr. D.J. Whitson	— University of Alberta
Dr. J.C. Wood	— Unaffiliated

* No longer on Sub-Committee

EEAC Liaison — Mrs. A. Hendry

SAC Liaison — Dr. S. Dalton

3.3.2.6 Urban Environment Sub-Committee

> ...maintenance and enhancement of urban infrastructure, systems and institutions so as to minimize environmental impacts and improve the livability of our cities.

Report from the Chairperson — Mr. Kenn Blom

1988 has been a very active year for our Committee. Meeting attendance has been excellent, discussion has been very, very positive, with the only problem being the shortage of meeting dates (six) and the relatively long time between meetings (six weeks). The 1988 program is given below.

The Committee is very proud of our "show piece" for 1988, a discussion paper prepared for the Alberta Conservation Strategy project entitled *Environment by Design: The Urban Place in Alberta.*

Urban Environment Sub-Committee Program, 1988

Date	Topic	Presenter
January 15, 1988	Conservation Strategy Urban Paper	Dr. Graham Power, Research and Development Dr. Pat Cadden, Planner Department of Municipal Affairs
February 26, 1988	Alberta Special Wastes	Mr. Bill Ross, Alberta Special Waste Management Corporation
	Household Toxic Waste Roundup	Mr. Brad Wylynko, Toxics Watch
April 15, 1988	City of Edmonton Water Quality Assessment	Dr. Steve Hrudey, University of Alberta
	Tin Man Recycling Project	Mr. Zan Figol, City of Edmonton
May 27, 1988	Ample Program	Dr. Gordon Smith, City of Edmonton
	Landfill Choice — Edmonton	Mr. Roy Neehall, City of Edmonton
September 23, 1988	Household Toxic Wastes Video	Ms. Debbie Griff, Environment Canada
	Healthy Cities/Communities Project	Ms. Anne Goldblat Edmonton Local Board of Health
October 28, 1988	Update on Alberta Special Waste Management Corporation	Mr. Tom Thackeray, Alberta Special Waste Management Corporation

It has received favorable comment and we anticipate its effective value in the overall development of a conservation strategy and as a planning tool for the evolution of the urban environment in the future of Alberta. Credit for this paper must be given to Bill Flook, our representative on the Conservation Strategy Steering Committee, ably assisted by Kim Sanderson of the ECA staff and several other ECA staff members who were involved in the editing and distribution of the paper.

The Committee has committed its support to the need for moving ahead with phase two of the Urban Parks Project. To this end we have written to Premier Getty and the members of the Priorities Committee of Cabinet seeking their support.

Our Committee looks forward to your support to our two resolutions in 1988, one on recycling and a second one on noise.

The Committee congratulates the Environment Council of Alberta on receipt of the 1988 Environmental Health Review Award from the Canadian Institute of Public Health Inspectors. All of us in the Sub-Committee feel the void left in the leadership of the Environment Council of Alberta since the departure of Alistair Crerar. His leadership, direction, and support of the Public Advisory Committee has enabled the group to function and provide positive input to environmental matters that affect all Albertans. The delay by the government of Alberta in making a replacement is of very great concern to the membership of the Sub-Committee.

I am indebted to the able assistance of Vice-Chairman Joan Lewin and the very valuable contribution made by all members of the Committee through 1988. To those members who have left the Committee, we thank you, and to those who have joined us through the year, we look forward to your continued participation in a very active 1989.

The ongoing support of Randalin Pretty, Executive Secretary and the continuing assistance of Archie Landals and other members of the Environment Council of Alberta staff is much appreciated.

Mr. Kenn Blom
Chairperson
Urban Environment Sub-Committee

Members of the Urban Environment Sub-Committee

Chairperson

Mr. K. Blom	— Unaffiliated
Ald. D. Arthur	— City of Lloydminster
Mrs. G. Bako*+	— Alberta Cancer Board
Dr. L. Bakshi	— Unaffiliated
Dr. T. Burton*	— University of Alberta
Mrs. L. Daniel	— Alberta Association of Landscape Architects
Mr. R. Davidson	— City of Airdrie
Mr. K. Driver	— Unaffiliated
Ms. S. Fincham	— Alberta Cancer Board
Mr. W.A. Flook	— Unaffiliated
Ald. B. Gendreau	— City of Fort McMurray
Ald. N. Hartfelder	— City of Leduc
Mr. A.M. Holland*	— Alberta Association of Architects
Mr. V. Kozak	— Alberta Association of Architects
Ms. W. Lee	— Society for the Preservation of Architectural Resources in Edmonton (SPARE)
Ms. J. Lewin	— City of Calgary
Mrs. M. Lutz	— Consumers' Association of Canada
Mr. F. Markson	— Urban Development Institute of Alberta
Mr. E. Park+	— Alberta Urban Municipalities Association
Dr. K. Pennifold	— Unaffiliated
Ald. D. Petroski	— City of Fort Saskatchewan
Ald. L. Pimm*	— City of Red Deer
Mr. S. Pragnell	— Alberta Association Canadian Institute of Planners
Mr. E. Radbourne	— City of Grande Prairie
Ald. C. Reid	— Alberta Urban Municipalities Association
Mr. P. Rudiak	— Keyano College
Mrs. J. Sloan	— Lloydminster Chamber of Commerce
Ald. R. Summers-Gill*	— City of Lloydminster
Ald. G. Surkan	— City of Red Deer
Dr. J.C. Wood*	— Unaffiliated
Mr. B. Wyness*	— Society for the Preservation of Architectural Resources in Edmonton (SPARE)

* No longer on Sub-Committee

+ Attended Sub-Committee as Alternate

EEAC Liaison — Ms. D. Griff

SAC Liaison — Dr. S. Dalton

3.3.3 ENVIRONMENTAL EDUCATION ADVISORY COMMITTEE

> ...to advise the Council and the Government on matters concerning environmental education, to comment on environmental programs both within and outside of the formal educational systems, and to assist in the formulation, development and implementation of such programs wherever possible.

Report from the Chairperson — Mr. William P. Batycky

The past year has been a very successful year for the Environmental Education Advisory Committee. The Committee has reaped the benefits of a strong and dedicated membership. The goals and objectives presented at the 1987 Annual Joint Meeting have been, to a large extent, achieved during the past 12 months.

The objectives for the year were:

1) To review existing environmental education programs offered by the various government departments with the purpose of evaluating effectiveness, providing support, offering encouragement, providing recommendations, and promoting co-operative support between agencies when possible.

2) To address the Alberta Conservation Strategy and move towards the development and completion of a position paper on the role and impact of environmental education on, and in, a Conservation Strategy.

3) To review the proposed changes in Secondary Science by Alberta Education with the purpose of encouraging the incorporation of environment-related issues as a focus of study and of environmental education as a strategy for study.

To these ends, EEAC held six meetings during the past year and dealt with the following items:

1) Assessment of Governmental Environmental Education Programs

   A Sub-Committee reviewed the education programs of five government departments identified as having an environmental focus. Feedback to each department occurred as a follow-up. Favourable responses were received from each of the Ministers responsible for Agriculture, Energy, Environment, Recreation and Parks, and Technology, Research and Telecommunications. Subsequently, members of EEAC were each assigned to monitor the programs and program changes of a specific department on an ongoing basis. Education was also assigned a liaison, even though a formal assessment had not been done of their program as they are in the process of developing new science curricula.

2) Alberta Conservation Strategy

   The EEAC has developed an internal discussion paper that focuses on the conservation strategy and environmental education "Environmental Education for Alberta — Into the 21st Century." Environmental education can play a role in increasing awareness of the publics of the Conservation Strategy as well as provide a strategy for fostering or reinforcing attitudes and behaviours compatible with conservation.

   FEESA (Friends of Environment Education Society of Alberta), at the request of the EEAC, has set up a project management committee to oversee the development and production of educational resources focusing on the Alberta Conservation Strategy. The project's mission is "to encourage the broadest possible understanding and involvement in the Alberta Conservation Strategy process." Three goals and their corresponding actions were identified:

   a) to promote awareness and interest in the development of a Conservation Strategy through the development of a poster

   b) to encourage understanding and involvement in the development of Provincial Conservation Strategies through the production of an information video

   c) to develop an understanding and commitment personally, locally, and globally to the development of Conservation Strategies through the production of educational resource material.

3) Alberta Education Secondary Science Program

   Mr. Bernie Galbraith, Junior High Science Program Manager, presented the EEAC with all developments to date, as well as proposed time lines. Members emphasized the necessity to ensure that environmental issues and concerns are incorporated into the new curricula. They also offered to serve as reviewers for the appropriate units as they are developed.

Individual Committee members have all been active in the promotion of events such as Environment Week and Environmental Sabbath, and in the lobbying for environmental programs, both locally and provincially. Their efforts have had a definite impact on the development of environmental education in Alberta and are greatly appreciated.

I would like to give my sincere thanks to all members of the EEAC for their support and quality participation in this past year's program. We have enjoyed excellent support from PAC and the Sub-Committees and from the staff of the ECA who have provided us with support and patient assistance. The Environmental Education Advisory Committee gratefully acknowledges the contributions of all its retiring members and welcomes the input and insights of its new members.

Mr. William P. Batycky
Chairperson
Environmental Education Advisory Committee

Members of the Environmental Education Advisory Committee

Mr. W.P. Batycky	— Interim Chairperson (January — June)
Dr. W. Samiroden	— Interim Chairperson (September — December)

Mr. D. Merrills	— Vice-Chairperson
Mrs. M. Bailey	— Membership Chairperson

Mr. E. Bailey	Mr. R. Mrazek
Ms. E. Beaubien*	Mr. B. Ogston
Dr. A. Einsiedel, Jr.	Ms. B. Russell
Ms. S. Fast	Mr. D. Spalding*
Mrs. J. Finlay	Mr. D. Stoker*
Dr. J. Godfrey	Mr. R. Sweet
Ms. D. Griff	Mr. I. Waugh
Mrs. A. Hendry	Mr. B. Wylie
Ms. A. Klimke*	Ms. W. Zelt
Mr. J. Martin	

* No longer on EEAC

Liaison Persons for PAC Sub-Committees

Dr. J. Godfrey	— Energy and Non-Renewable Resources
Mrs. M. Bailey	— Environment Protection
Dr. W. Samiroden	— Pollution
Mr. I. Waugh	— Renewable Resources
Mrs. A. Hendry	— Rural Environment
Ms. D. Griff	— Urban Environment

3.3.4 SCIENCE ADVISORY COMMITTEE

> ...to provide technical and scientific advice and assistance to the Council.

Report from the Chairperson — Dr. Sheri Dalton

The Science Advisory Committee met as a Committee of the whole on three occasions in the year following the 1987 Annual Joint Meeting of the Environment Council of Alberta and its Advisory Committees. Several members of SAC also participated in a tour of the Alberta Special Waste Treatment Centre in May of 1988. The relatively low number of meetings, in comparison with the other ECA Advisory Committees, was a result of SAC's decision that its role could best be served by its members speaking as individuals or as part of ad hoc committees.

The members of the Science Advisory Committee have continued their involvement in monitoring and providing professional advice on such issues as water use in Alberta, forestry management, herbicide use, endangered plants, and the Alberta Conservation Strategy (particularly in the area of wildlife management). SAC also, on request, provided information to the Peace River Medical Health Unit on possible human health concerns related to pulp mills.

The Science Advisory Committee continued its attempt to increase the efficiency of its liaison with the other ECA Advisory Committees. SAC members were able to attend several of their 1988 meetings to assist with identification of speakers and to review some materials. SAC, along with the Environmental Education Advisory Committee, has been particularly involved with reviewing materials for the proposed Junior High School Science Education Program. Commitment to this review is an acknowledgement that science education at a basic level is vital to informed decision-making by Albertans in the future. We thank Bernie Galbraith of Alberta Education for the opportunity to be of assistance in this project.

In 1988, SAC regretfully lost Dr. Harvey Buckmaster as a member. SAC welcomed Dr. John Godfrey as a transfer from the Environmental Education Advisory Committee and has discussed several ways in which it might effectively expand its membership. The Science Advisory Committee is now setting its priorities for 1989 and looks forward to the appointment of a new Chief Executive Officer of the Environment Council of Alberta.

I would like to thank all members of SAC for their contributions over the past year and express my appreciation to the Research and Administration staff of the ECA for their assistance.

Dr. Sheri Dalton
Chairperson
Science Advisory Committee

Members of the Science Advisory Committee

Chairperson

Dr. S. Dalton	— Concordia College
Dr. C.F. Bentley	— Department of Soil Science University of Alberta
Dr. H. Buckmaster*	— Department of Physics University of Calgary
Dr. W.A. Fuller	— Department of Zoology University of Alberta
Ms. M. Haag	— Department of Zoology University of Alberta
Dr. J. Hackler	— Department of Sociology University of Alberta
Ms. L. Horstman	— Canadian Society of Environmental Biologists
Dr. F. Kozar	
Dr. D. Kvill	— Athabasca University
Dr. R.K. Lane	— Environment Canada
Dr. P. Mahaffy	—, Department of Chemistry King's College
Dr. W. Moser	— Department of Botany University of Alberta
Dr. R.P. Pharis	— Department of Biology University of Calgary
Dr. W. Phillips	— Department of Rural Economy University of Alberta
Dr. B. Rogers	— Concordia College
Dr. R. Swanson	— Canadian Forestry Service
Dr. D. Thompson	— Faculty of Environmental Design, University of Calgary
Dr. W.H. Vanden Born	— Department of Plant Science University of Alberta
Dr. T.S. Veeman	— Department of Economics University of Alberta
Mr. W. Wishart	
Dr. P. Woodard	— Department of Forest Science University of Alberta

* No longer on SAC

Liaison Persons for PAC Sub-Committees

Dr. D. Kvill	— Energy and Non-Renewable Resources
Dr. T. Veeman	— Environment Protection
Dr. R.K. Lane	— Pollution
Dr. R. Swanson	— Renewable Resources
Dr. S. Dalton	— Rural Environment; Urban Environment
Ms. M. Haag	— Environmental Education Advisory Committee

3.4 ALBERTA CONSERVATION STRATEGY

Initiated by the Public Advisory Committees in 1984, the Alberta Conservation Strategy (ACS) project continues to occupy a large portion of the PAC agenda. This is appropriate, for the ACS is the most complex and massive effort PAC has ever launched and, at the time it was begun, it put Alberta in the lead in this country with respect to development of a provincial conservation strategy. Since then, other provinces and both territories have initiated their own projects, with Prince Edward Island actually completing its strategy and receiving approval by the legislature in 1987. The Alberta Government has expressed its desire to have a strategy for this province by 1990.

Widespread public participation is a major component of virtually all processes being used to prepare strategies, both in Canada and elsewhere in the world. Alberta's process is no different. At the 1985 Annual Joint Meeting, PAC unanimously passed a resolution that the ECA conduct public hearings on the draft ACS, and remains hopeful that such hearings will be called in 1989. In the interim, PAC and the Steering Committee have remained undeterred in their efforts to reach and involve as many people as possible in the preparation of sectoral discussion papers and other aspects of the project.

By the end of 1988, more than 250 specialists had been invited to share their knowledge and expertise with PAC. Some 40 percent of these were from the provincial government, spread over more than 15 different agencies. Nearly 35 percent of the guests were from the private sector: business, industry, and professionals. The remaining 25 percent comprised individuals from academia, municipal and local governments, the federal government, and six elected officials from various levels of government. This balance of participation reflects the multipartite, consensus-building ap-

proach PAC has taken from the beginning with this project.

Communicating with the interested public has been a high priority as well. The newsletter, *ACS Update*, now in its third year, remains one of the major communications tools; it was published twice in 1988 in a longer format and distributed to the nearly 2,500 names now on the ACS mailing list. A short item published and distributed to some 700,000 homes during Environment Week publicized the project, as did the Spring 1988 issue of *Environment Views* magazine, which featured the ACS. Newsletters published by PAC member organizations have also provided progress reports on the project and encouraged more of their members to get involved.

The first two discussion papers published in 1987 (*Reserves for Nature* and *Resolving Conflict*) were followed by six more in 1988. Sectoral papers on the urban environment, tourism, agriculture, energy conservation, renewable energy, and historical resources were published this year. Hundreds of hours of volunteer time went into the production of these papers, which have received many favorable comments. A number of government departments and non-government agencies also actively assisted writing and review of the discussion papers. Some 11,000 copies of ACS reports, including the Prospectus, have now been distributed, and demand remains steady for all papers. Increased interest in some of the other sectors resulted in the decision to delay their editing and publication to obtain additional input and review. It is expected that sector papers dealing with minerals, wetlands, forestry, fish and wildlife, biological diversity and endangered species, parks and outdoor recreation, and oil and gas will be published in 1989.

Widespread interest in the project also resulted in the addition of three more sectors: electricity, health and environment, and wilderness. Commitments to assist or lead the preparation of discussion papers for these sectors have been obtained, thereby bringing into the project several diverse groups and individuals that had not previously been actively involved.

As the background papers near completion, work has begun on the draft strategy and companion documents. With the Prospectus having achieved consensus on the need for a strategy and on the objectives it should contain, the next step was to develop a series of aims that would connect the larger objectives with concrete, on-the-ground actions required to implement a strategy. As part of the ongoing collaborative and consensus-building process, the Steering Committee circulated the 48 aims to all PAC members and to every member of Executive Council for review. The response was favorable, with many constructive and thoughtful comments and general agreement with the intention of the objectives and aims.

The decision was also made in 1988 to produce some graphic materials to complement the ACS documents. A local artist began work on poster-size drawings which will feature six themes: energy, the urban environment, air and water, the boreal forest, the prairie-parkland, and the mountains and foothills. The first two were completed in 1988 and the third is well underway.

During the past four years, the Alberta Conservation Strategy has surprised and, at times, nearly overwhelmed those volunteers who have worked so hard to reach their goals. This dedicated effort is now paying off and PAC is looking forward to seeing the publication of all background papers as well as a draft Alberta Conservation Strategy in 1989.

3.4.1 ALBERTA CONSERVATION STRATEGY STEERING COMMITTEE

Report from the Chairperson — Dr. Joan Snyder

This has been a year of considerable satisfaction for the Steering Committee on many fronts. The project has continued to grow as we gained confidence in our approach and looked for new ways to communicate — both to get our message out and to obtain valued input to help make our product better. By November, 1988 there were eight sector discussion papers in print with over 6,000 copies

distributed, and more than 2,400 names on our mailing list. This is quite a remarkable achievement considering that our efforts to advertise have been subject to severe budget restrictions.

The year began in a promising manner with a joint meeting of the Steering Committee, the Coordinating Committee, and the then-minister, Hon. Ken Kowalski. However, the one sad note of 1988 occurred in April with the resignation of Alistair Crerar as Chief Executive Officer to take up a position in Pakistan. Alistair was totally supportive of the Alberta Conservation Strategy project, but our loss is Pakistan's gain. We feel extremely honored that Pakistan and the IUCN looked to our work in Alberta when searching for a person to head up development of a Strategy in that country.

Communication with other agencies and departments in the ACS project was also expanded this year as the Steering Committee met with both the Water Resources Commission and the Policy Secretariat of Alberta Forestry, Lands, and Wildlife to discuss respective roles and objectives. As part of the ongoing process of collaboration and consensus-building, we circulated the objectives and draft aims for the strategy to all PAC members and to all Ministers for comments and suggestions. The response has been gratifying, not only in the sense that we have received a number of very constructive and helpful suggestions, but there were also many very complimentary and supportive comments on the project as a whole.

Our newsletter, the *ACS Update*, appeared three times this year in a longer format, with a different focus for each issue. Our communications efforts were assisted by other agencies too. First, the spring issue of *Environment Views* magazine had Conservation Strategies as its theme. Several Steering Committee members were featured in the magazine, which did a good job of presenting the ACS and putting it in a global context. The fall issue also included a tear-out card for readers to fill in and mail to us if they wanted to be added to the ACS mailing list. *Environment Views* is distributed to some 10,000 readers and we are delighted with the support and publicity resulting from the ACS features. Another big assist came from an article on the ACS inserted into the Environment Week '88 media kit and which also appeared in some of the features in local newspapers. The theme for Environment Week '88 was "Our Common Future," the title of the report of the UN Commission on Environment and Development, and activities supportive of conservation strategies popped up across Alberta as a result.

Production of graphics materials also got underway in 1988. A local artist is preparing a series of six drawings which will be reduced and incorporated into a short illustrated document to accompany the draft Conservation Strategy. The themes of the drawings will be the boreal forest, mountains/foothills, prairie/parkland, urban places, air and water, and energy. Activities, uses, and interactions will be featured in the drawings. We are hopeful that when all six are completed, sponsors might be found to produce a large quantity of color posters for each theme.

As the project has grown and more people get involved, there have been several suggestions for more sectors. Sectors which have been added this year include electricity, health promotion, and wilderness; the energy conservation and renewable energy sector was split into two papers, and decisions remain to be made on the possible splitting of another sector. From an initial plan of 14 sectors, it is now entirely possible that we could end up with as many as 20 background discussion papers. The Steering Committee has been a little overwhelmed at times by the increasing size of the project, but we can't help but be pleased with the interest and commitment that this growth indicates.

Much of the hard work on this project continues to be done in the PAC subcommittees, through workshops, seminars, and guest speakers. The Steering Committee is grateful to all PAC members and chairpersons for this ongoing support and commitment. The review of sector papers has been especially valuable as members bring their own experience and expertise to the discussion to improve the quality of our final documents.

Finally, we are extremely appreciative of the continuing assistance and support from the Environment Council. The research division in particular has been very dedicated in its efforts to help get the discussion papers out, and we would like also to extend a special acknowledgement to the editor for the excellent quality and appearance of all papers in the series. Everyone at the ECA has contributed in the last year to compile masses of material, assemble the papers, reproduce thousands of copies, and distribute our product to the public. We realize that in such a small organization, teamwork and commitment are essential, and it has been a pleasure to work so closely with everyone on the ECA staff. We hope it has been as rewarding a year for them as it has been for us.

Dr. Joan Snyder
Chairperson
Alberta Conservation Strategy Steering Committee

Members of the Alberta Conservation Strategy Steering Committee

Chairperson
Dr. Joan Snyder

Mr. E. Bailey
Mr. W.A. Flook
Ms. H. Heacock
Ms. S. Henderson
Ms. L. Horstman
Mrs. B. Hunter
Mr. E. Kure
Mr. P. Lulman
Ms. J. McLean-Hayden
Ms. S. Nelson Pier
Mrs. B. Paschen
Mr. B. Peel
Mrs. M. Posey
Mr. R.M. Richardson
Mrs. M. Stephenson
Dr. G. Swinnerton

3.5 ANNUAL JOINT MEETING

3.5.1 LOCATION AND ATTENDANCE

In keeping with fiscal restraint, the Annual Joint Meeting was again held in Edmonton. The meeting took place on December 1 and 2 and was well attended, with over 100 participants.

3.5.2 PROGRAM

The 1988 Annual Joint Meeting continued to deal with topics of relevance to the Alberta Conservation Strategy. Structured around the broad theme of "Implementation Through Co-operation," this year's meeting examined how we can maximize the benefits from the many initiatives now underway in the Prairie Parkland Region of Alberta. This theme is a logical follow-up to the development of the background discussion papers for the Conservation Strategy. These papers concentrate on the interactions of the various economic sectors in Alberta and the resources on which they depend. Throughout the papers there is a frequently occurring realization that the pressures on our resources are now to the point that programs and initiatives of one agency can no longer ignore the objectives of other agencies. If programs can not be made compatible, at the very least they must not be counter-productive.

The discussion of this year's Annual Joint Meeting was intended to enhance our understanding of how we might better integrate environment and economic concerns while simultaneously achieving a number of objectives.

3.5.3 NEW OFFICERS

Dr. Lochan Bakshi was acclaimed chairperson of the Co-ordinating Committee for 1989. He succeeds Mrs. Jean Sloan, who now assumes the duties of past chairperson. Dr. Joan Snyder was acclaimed vice-chairperson for the coming year. Among her duties will be heading the Annual Joint Meeting Planning Committee for 1988.

3.5.4 RESOLUTIONS

Five resolutions were approved at the plenary sessions of the 1988 Annual Joint Meeting. The text of these five resolutions follows. A sixth resolution, calling for public hearings on the management of Crown lands in Alberta, was tabled

pending a decision on public hearings on the Alberta Conservation Strategy.

Resolution One

I. Canadian Heritage Rivers Program

II. Be It Resolved:

THAT the Government of Alberta agree to become a fully participating partner in the federal-provincial co-operative conservation program: the Canadian Heritage Rivers System (CHRS).

III. Background:

All provinces and territories in Canada, with the exception of only British Columbia and Alberta, have agreed to participate and designate Heritage Rivers under their jurisdiction.

Alberta's rivers make up one of the most important elements of our provincial and national heritage.

Rivers were an important part of the life of aboriginal people, a major source of food supply, and a vital link in the network of transportation and commerce long before the arrival of European settlers. Rivers have played an important role in the development of this province; the first explorers and traders used the same travel routes as the Indians — the rivers. With the advent of the fur trade, settlements and trading posts were established along the rivers. Settlers established their towns and farms in the rich alluvial valleys, and rivers were used to freight barges and to provide power.

Rivers have played a major role in creating the Alberta landscape. These rivers also provide a tremendous diversity of tourist and recreational opportunities for Albertans, Canadians, and other visitors alike.

Over the course of time, however, rivers have been subjected to change, including:

- damming and upstream inundation
- forestry operations causing erosion and silting
- diversions of the watercourse
- disappearance of falls, rapids, and marshes
- dumping of sewage and chemicals.

In recognition of the need for action, in 1979 a task force of federal, provincial, and international parks ministers was established to prepare a joint proposal for a system of Canadian Heritage Rivers. By 1983 there was a majority agreement with the task force recommendations and most governments agreed to participate in the program.

In recent years, the Government of Alberta has repeatedly expressed its support for its growing tourist industry. Heritage Rivers should be an integral part of this industry and would afford significant protection to specific rivers.

Heritage Rivers are being identified, managed, and preserved for the public's benefit and enjoyment. Sometimes it is impossible to conserve the entire length of the rivers and only a segment of the river is designated. The management of Heritage Rivers remains with the government in whose jurisdiction the river lies.

To qualify for consideration, Heritage Rivers must be of outstanding Canadian heritage value and must fulfil certain criteria related to:

- size
- number of key resources and ecosystem components
- water quality
- natural values
- human heritage values
- recreational heritage values.

The objectives of CHRS are to give national recognition to the important Canadian rivers and to ensure their future management such that:

- their natural heritage is conserved and interpreted
- their human heritage is conserved and interpreted
- the opportunities which they possess for recreation and heritage appreciation be realized by residents of, and visitors to, Canada.

Already, in Alberta, two major rivers have been recognized as having outstanding natural beauty, historical significance, and importance for river recreation, and their headwaters have been nominated for CHRS. These are the portions of the Athabasca and the North Saskatchewan Rivers which lie within Jasper and Banff National Parks and whose jurisdiction therefore belongs to the federal government.

IV. References:

V. To Be Directed To:

Premier
Minister of Federal and Intergovernmental Affairs
Minister of Recreation and Parks
Minister of Culture and Multiculturalism
Minister of Environment
Minister of Forestry, Lands and Wildlife

VI. Proposed by the Environment Protection Sub-Committee

Resolution Two

I. Environment Watch

II. Be It Resolved:

THAT Alberta Environment initiate an "Environment Watch" Program.

III. Background:

The "Environment Watch" Program would provide a 24-hour telephone hotline which Albertans could use if they see any actions by individuals or organizations which they consider to be deleterious to their health or to the environment, be it air, water, or land-based pollution.

An "Environment Watch" Program would continue the beneficial process begun by the HELP Program.

The well publicized HELP (Help Eliminate Landfill Pollution) Program proved that Albertans, when given the opportunity to respond to pollution concerns, respond in a very positive fashion.

Another very successful program is the Fish and Wildlife Division's "Outdoor Observer" program.

IV. References:

V. To Be Directed To:

Minister of Environment
Minister of Health

VI. Proposed by the Pollution Sub-Committee

Resolution Three

I. The Greenhouse Effect

II. Be It Resolved:

THAT the Government of Alberta establish a goal to reduce CO_2 emissions in Alberta by at least 20 percent of 1988 levels by the year 2005.

III. Background:

Continuing alteration of the global atmosphere threatens global security, the world economy, and the natural environment through climate warming, rising sea level, and altered precipitation patterns. These changes will imperil human health and welfare, diminish global food security, increase political instability and the potential for conflict, jeopardize prospects for sustainable development, and accelerate extinction of animal and plant species.

In Alberta, the major impacts will likely be on agriculture, forestry, and wildlife. More droughts will result in reduced yields, an increase in crop diseases and pests, and more wind erosion. There will be less water available for irrigation and the rate of evaporation will increase. It is predicted that there will be an increase in the frequency and size of forest fires and epidemics of insects and diseases. Wildlife will be affected by both the loss of wetlands and the impact on forests.

The "Heat Trap" or Greenhouse Effect is caused by increases in the concentrations of greenhouse gases, including carbon dioxide,

chlorofluorocarbons, tropospheric ozone, nitrous oxide, and methane.

The one source of greenhouse gases that stands out above all others is the burning of fossil fuels. Fossil fuel combustion is responsible for more than 50 percent of the warming trend. Reducing emissions of CO_2 is the single most important measure to reduce climate change.

This reduction in CO_2 emissions will require energy conservation, increased efficiency of energy use, switching to lower CO_2 emitting fuels, especially natural gas, and switching to renewable energy sources.

IV. References:

Conference Statement, The Changing Atmosphere: Implications for Global Security. Toronto, Canada, June 27-30, 1988. Environment Canada.

V. To Be Directed To:

Minister of Environment
Minister of Energy
Premier

VI. Proposed by the Pollution Sub-Committee

Resolution Four

I. Response to Public Hearings on Noise in Alberta

II. Be It Resolved:

THAT the Government of Alberta provide a formal response to the Environment Council of Alberta's Report and Recommendations on Noise submitted in July, 1982.

III. Background:

During 1982, the Environment Council of Alberta conducted public hearings in six centers throughout Alberta, at which 156 briefs were presented. From these submissions, and considerable research conducted, an extensive Report and Recommendations was prepared and submitted to the Government of Alberta.

In 1983, the Urban Environment Sub-Committee proposed in Resolution 8 that the Government establish a Quiet Communities Directorate as recommended in the Environment Council of Alberta's Report and Recommendations on Noise.

As the Urban Environment Sub-Committee continues to support the 1982 Report, and as there has been no formal response to either the Report or the Resolution, it would appreciate learning the Government's reaction to the Report.

IV. References:

Environment Council of Alberta. 1982. *Public Hearings on Noise in Alberta, Report and Recommendations.*

V. To Be Directed To:

Premier
Minister of Environment
Minister of Municipal Affairs
Minister of Health
Minister of Education

VI. Proposed by the Urban Environment Sub-Committee

Resolution Five

I. Recycling of Waste

II. Be It Resolved:

THAT the Premier of Alberta proclaim, as official Government policy, that the management of waste in all Alberta municipalities be based on maximum recovery and recycling of waste materials, and that all Government departments and agencies be required to give full co-operation to the implementation of this policy.

III. Background:

At the present time Alberta is in a particularly favorable position to abandon its historical dependence on landfilling as the primary means for disposal of its waste materials.

The 1986 Environment Council of Alberta public hearings showed conclusively that almost no one favored this method of disposal and would definitely not want a landfill site for a neighbor. This resentment extends to communities as well

and it has now become virtually impossible to locate new landfill sites without incurring massive public hostility.

For the last two years, Edmonton has provided a visible example of this public resistance and the present difficulties attendant on the establishment of its new Aurum site are obviously far from over.

A recycling program would immediately redirect a significant portion of this material into channels of reuse. In addition, the storage of materials awaiting reuse, but in a separated state, would remove from the storage areas the stigma of garbage which now makes them so publicly revolting.

Action by the provincial government now, to take advantage of this obvious public sentiment, would go a long way towards promoting the speedy installation and smooth operation of the total recycling system for the municipalities of Alberta.

IV. References:

Environment Council of Alberta. 1987. *Recycling of Waste in Alberta: Report and Recommendations.* Available in Technical Report or Summary Report.

V. To Be Directed To:

Premier
Minister of Environment
Minister of Municipal Affairs
Minister of Health

VI. Proposed by the Urban Environment Sub-Committee

3.6 RESPONSES TO 1987 RESOLUTIONS

Resolutions ratified at the 1987 Annual Joint Meeting were forwarded to the Minister of Environment, and made available to the public through the Annual Report and other methods. Responses received by the Council in 1988 to the resolutions are included in Appendix C.

3.7 PUBLIC COMMUNICATIONS

The Public Advisory Committees maintain continuous and strong communications links with the government and members of the legislature, as well as with the members of its advisory and sub-committees and the general public. Letters, meetings with various ministers, and distribution of advisory committee meeting minutes are among the more regular forms of communication used. However, from time to time news releases on topics of wider interest or importance are produced (see Appendix D). These, along with material prepared for a regular PAC members' newsletter (*PAC NOTES*), are also made available as a service to the editors of the various newsletters published by organizations who have representatives nominated to PAC.

4. OTHER ACTIVITIES OF THE ENVIRONMENT COUNCIL

4.1 REVIEW PANEL ON ENVIRONMENTAL LAW ENFORCEMENT

The Report of the Review Panel on Environmental Law Enforcement was released by the Minister of the Environment in January, 1988 with a request for public comment. The Environment Council reviewed the report with great interest because of the submission by staff members John Lilley and Brian Free to the Panel based on their earlier reviews of the Clean Water Act and the Clean Air Act. The ECA's assessment of the report, by Alistair Crerar, Chief Executive Officer, concluded that the Review Panel's "Action Plan" addresses most of the recommendations raised by the Environment Council. The Council concurs with most of the recommendations of the Review Panel and commended the Panel for the far-reaching suggestions and foresight shown in its report.

The Council supported the proposal to develop a comprehensive policy with respect to setting, reviewing, and evaluating environmental standards but expressed concern that the Panel did not go far enough in its suggestions related to the need for clearly stated goals for air and water quality management as a prerequisite for the establishment of environmental standards and implementation of an enforcement policy. The Council supported the preparation of a comprehensive "State of the Environment Report" but noted that a "State of the Environment Report," while including a comprehensive study of the status of the province's air and water quality, should also cover many other components of the environment, not the least of which is Alberta's land base and all of its component resources.

The Council's review also reiterated its support for public involvement in environmental standard setting, monitoring, and licensing and suggested that future policy statements by Alberta Environment should clearly and consistently recognize the role of the public in environmental decision-making. The policy statements should detail the opportunities for meaningful public input in both the development and review of policies and standards. The Environment Council, with its several functions related to facilitating public input into government policies, could be of valuable assistance.

Alberta Environment also announced its intent to form a multipartite steering committee to obtain input on the recommendations and implementation strategy for the Review Panel's report. The ECA's Public Advisory Committee nominated John Lilley, staff with the Council, as well as Menno Homan, Charlie Wood, George Stewart, and Bill Flook, for consideration as members of the committee. As of year end, no further word had been received about the establishment of the Steering Committee.

4.2 NATIONAL TASK FORCE ON ENVIRONMENT AND ECONOMY

The second year of the work of the National Task Force on Environment and Economy focused on monitoring progress and helping to prepare a compendium of experience with conservation strategies across Canada in accordance with recommendation 4.2 of their original report.

The ECA was directly involved in both of these tasks. Questionnaires were prepared and mailed to groups and governments involved in conservation strategy activity across Canada. These data were compiled and a report was prepared describing the results of the questionnaire and submitted to CCREM. Final editing and report preparation were handled by the ECA.

The Progress Report of the National Task Force on Environment and Economy was written as a joint project, intended to monitor and report on progress made on the 40 recommendations of the original Report. The Progress Report includes a table recording progress and intentions of each province on certain key areas.

Final design, production, and distribution of the Progress Report, in both official languages, were done at the Environment Council of Alberta. The latest in desk-top publishing equipment, electronic communications, and data transfer technology were used to the fullest in organizing and producing this important national report. The cooperation of all ten provinces, both territories, and the federal government was essential to the effort.

4.3 ECA-ONLINE

The interest in the computerized bulletin board remains high. ECA-ONLINE began as an experiment on October 3, 1986. Initially this was an evening and weekend operation, but after a few months it became possible to make it available on a 24-hour-a-day, seven-day-a-week basis. It can be accessed without long distance charges only in the Edmonton toll free area.

By the end of 1986, about 200 users were on the system, close to 1,000 at the end of 1987, and 1,844 on December 31, 1988. The chart below provides some information on what users have been doing.

The number of users continues to increase, as has the total amount of time on-line, and users are downloading more files. Increasing familiarity of users with the system seems to be reflected in the following figures:

Year	Hours On-line Per Call
1986	0.31
1987	0.21
1988	0.19

ECA-ONLINE will continue to operate in the 1989 calendar year.

4.4 ASSISTANCE TO OTHER ORGANIZATIONS

Despite the small size of the ECA, there are frequent requests to provide assistance, information, and ideas to others. In order to illustrate this, the following is a list of some of those activities in 1988. They are listed in the following categories: Information and Expertise, Speaking Engagements, Materials, and Support Services.

ECA–ONLINE User Activity

	1986*		1987		1988	
	Total	Daily	Total	Daily	Total	Daily
# of calls	360	4.09	2,728	7.47	3,508	9.61
on-line time (hrs.)	113	1.28	560	1.53	673	1.84
downloads	92	1.00	705	1.93	1,043	2.86
uploads	25	0.28	59	0.16	78	0.21

* 88 days only

ECA Activities in Support of Other Agencies and Projects

Information and Expertise

- provided considerable input to the Secretariat to the National Task Force on the Environment and Economy
- met with federal government representatives to review a draft public participation manual for use by federal government departments
- provided information to Parks Canada on how to set up a content analysis system for their public participation processes
- made a presentation to a Niagara Institute public participation course about ECA-ONLINE and the ECA public hearing content analysis system
- assisted the Alberta Fish and Game Association in using electronic communication systems
- provided staff to participate on the Steering Committee for the next federal State of the Environment report
- met with American Society for Environmental Education to provide input on the format, content, and audience for their new journal
- continued to participate on the Joint Committee on Environmental Education chaired by Alberta Environment
- assisted as resource personnel for issues of *Environment Views* dealing with conservation strategies and tourism
- continued to assist Access Network in developing background material for telecourse on water
- provided information to the Pembina Institute for updating the Alberta Environmental Directory
- assisted the University of Lethbridge to locate speakers for the Oldman River Dam conference
- participated in workshop for integrating sustainable development into corporate strategies with Dow Chemical Canada
- participated on the Steering Committee of the Healthy Communities in Alberta Project
- assisted Canadian Council of Resource and Environment Ministers in preparing survey and report on Conservation Strategies in Canada
- participated on the Project Management Committee for the Conservation Strategy Education Materials Project
- participated on Ministerial Action Plan Advisory Group to implement National Task Force on Environment and Economy
- participated in workshop review of Canadian Environmental Advisory Council paper on land use planning and sustainable development
- participated on Program Committee for Environment Week
- participated in sustainable agriculture workshops at Harmony Foundation Conference on Sustainable Development

Speaking Engagements

- presentation to Canada World Youth about the World and Alberta Conservation Strategies and the National Forest Sector Strategy
- presentation to CUSO's "Dynamics for Change" workshop
- made a presentation to "Endangered Species" class at the University of Alberta
- presentation to the Keyano Canoe Club on the Alberta Conservation Strategy
- presentation to the Workshop on Rare Plants in Alberta
- presentation to Joint Working Group for the Yukon Conservation Strategy
- presentation on sustainable development to the annual meeting of the Women's Institute of Alberta
- presentation to annual meeting of Canadian Planners Association, Alberta Chapter
- presentation on sustainable development to church group
- presentation on Conservation Strategies, the Brundtland Commission, and sustainable development to Environmental Design class at the University of Calgary
- presented paper and address at Conference on Round Tables sponsored by Ontario Conservation Council

Materials

- provided ACS display to the Nisku meeting of the Christian Farmer's Federation
- provided materials to the Southern Alberta Environmental Group for Environment Week
- participated in Edmonton's "Picnic in the Park" recycling display
- provided materials for the Environment Week program of the Hastings Lake Community Association
- assisted the University of Alberta's Wildlands and Wildlife Club with display for Forestry Week
- set up display on genetic diversity at the Federation of Alberta Naturalists meeting in Red Deer

Support Services

- designed, produced, and distributed Progress Report of the National Task Force on Environment and Economy
- maintained the mailing list for the Environment Week Association
- provided meeting space and participated with curricular advisory committee for Lakeland College — Vermillion
- provided facilities for meeting of the federal Pesticides Directorate

4.5 ALBERTA CONSERVATION STRATEGY COMMUNICATIONS

One of the key elements of Alberta Conservation Strategy project is communications. Communications is vitally important to the several hundred people directly involved in preparing and reviewing discussion papers, participating in workshops, and providing input or comments on various issues. But as important as these "internal" communications are, there is another aspect of the ACS project for which communications is equally important.

During 1988, thousands of short items of information were sent out to thousands of Albertans, and many others not living in the province. The ACS mailing list continued to grow, and periodic updates and other notices and items of interest are sent several times a year to each group and individual on the list.

The mailing list contains the usual several hundred members of the general public, but over 400 addresses on the list are media of various sorts: newsletter editors, weekly and daily newspapers, radio, and television. About the same number of environmental organizations are on the list, and almost 300 government contacts receive our literature. In keeping with ECA policy, all members of the Alberta legislature are automatically including in our mailings. Over 90 libraries across Alberta receive our information, and an equal number of university departments all across Canada receive our ACS materials.

The Alberta Conservation Strategy has acquired an international reputation for leadership. As a result, the project currently corresponds with 111 non-Canadian groups or individuals in over 30 countries.

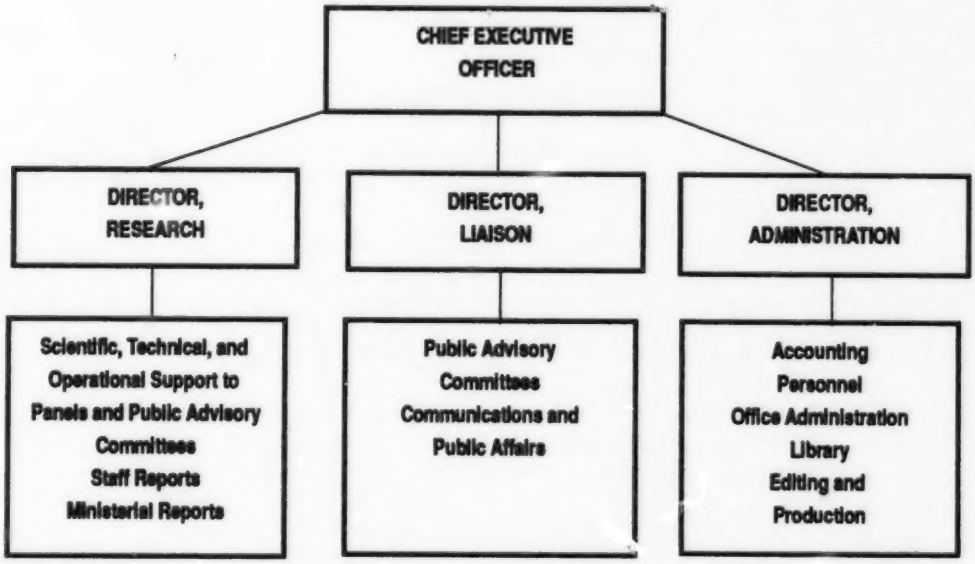
Significantly, the extensive and growing communications program has developed despite the fact that the ACS project has not yet reached the stage where intensive efforts will be made to communicate with the people of Alberta about the project. The great interest shown during the preparatory phase has forced the development of the communications program simply to meet initial demands for more information. During the coming year, it is expected that the project will begin to concentrate on external communications and a rapid and sweeping expansion of the communication and information program will occur.

5. ADMINISTRATION

The Administration Division is responsible for providing services to the Environment Council in the areas of accounting, budgeting, editing, library, messenger, office management, personnel, print procurement, and purchasing.

The Council occupies the 8th Floor, Weber Centre, 5555 Calgary Trail Southbound N.W., Edmonton.

5.1 ORGANIZATION OF THE ENVIRONMENT COUNCIL



1. CHIEF EXECUTIVE OFFICER — Exercises the power of the Council and performs the duties and functions of the Council, and is a member and Vice-Chairman of panels constituted by the Lieutenant-Governor in Council

2. DIRECTOR, RESEARCH — Directs research officers and is responsible for the scientific activities of the Council

3. DIRECTOR, LIAISON — Directs assistance to the Public Advisory Committees; responsible for communications, public relations and public affairs

4. DIRECTOR, ADMINISTRATION — Directs and supervises the administrative systems — financial, accounting, personnel, editing, and report production functions

5.2 FISCAL REPORT

Funds for the operation of the Environment Council are provided under the Minister of Environment's Vote 7 — Overview and Co-ordination of Environment Conservation. These funds are transferred to the Council from the Department of Treasury and, with the exception of salaries, are deposited in the Council's bank account at the main branch of the Canadian Imperial Bank of Commerce, Edmonton. Cheques are issued directly by the Council for payment of all accounts. During 1988, a total of 588 cheques were issued.

With the operation of its own bank account, the Council operates at arm's length from the Alberta Government; however, the financial statements are audited by the Office of the Auditor General. The statements as of March 31, 1988 follow.

Auditor General's Report

ALBERTA LEGISLATURE

OFFICE OF THE AUDITOR GENERAL

To the Director, Administration of the
Environment Council of Alberta

I have examined the balance sheet of the Environment Council of Alberta as at March 31, 1988 and the statements of revenue, expenditure and unexpended funds and equity in fixed assets for the year then ended. My examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as I considered necessary in the circumstances.

In my opinion, these financial statements present fairly the financial position of the Council as at March 31, 1988 and the results of its operations and the changes in its financial position for the year then ended in accordance with the disclosed basis of accounting, considered appropriate in the circumstances, as described in Note 2 to the financial statements applied on a basis consistent with that of the preceding year.

Donald D. Salmon

Donald D. Salmon, C.A.
Auditor General

Edmonton, Alberta
August 22, 1988

BALANCE SHEET AS AT MARCH 31, 1988

	1988	1987
ASSETS		
Current		
Cash	$112,650	$336,402
Contributions receivable, Province of Alberta	103,049	-
Prepaid expenses	2,765	7,619
	218,464	344,021
Fixed		
Office equipment, at cost	147,445	142,207
Less: Accumulated depreciation	127,698	119,543
	19,747	22,664
	$238,211	$366,685
LIABILITIES AND EQUITY		
Current		
Accounts payable	$3,360	$6,927
Equity		
Equity in fixed assets	19,747	22,664
Unexpended funds	215,104	337,094
	234,851	359,758
	$238,211	$366,685

The accompanying notes are part of these financial statements.

STATEMENT OF EQUITY IN FIXED ASSETS FOR THE YEAR ENDED MARCH 31, 1988

	1988	1987
Balance at beginning of year	$22,664	$27,653
Add: Office equipment purchased from operations	14,369	16,388
	37,063	44,041
Less: Depreciation for the year	17,316	21,377
Balance at end of year	$19,747	$22,664

STATEMENT OF REVENUE, EXPENDITURE AND UNEXPENDED FUNDS FOR THE YEAR ENDED MARCH 31, 1988

	1988	1987
REVENUE		
Contributions by the Province of Alberta, General Revenue Fund	$899,925	$1,236,591
EXPENDITURE		
Salaries	712,128	706,906
Travelling	90,983	190,166
Employee benefits	86,154	80,119
Printing	38,519	34,029
Office supplies and postage	23,134	32,742
Equipment rental	20,759	32,787
Equipment purchases	14,369	16,388
Fees and commissions	13,601	88,633
Equipment maintenance	11,062	16,273
Advertising	4,485	24,096
Telephone	3,223	4,785
Library	2,472	7,473
Hall rentals	871	6,126
Miscellaneous	125	437
	1,021,915	1,240,960
Excess of revenue over expenditure	(121,990)	(4,369)
Unexpended funds at beginning of year	337,094	341,463
Unexpended funds at end of year	$215,104	$337,094

NOTES TO THE FINANCIAL STATEMENTS MARCH 31, 1988

Note 1 Authority

The Environment Council of Alberta operates under the authority of the Environment Council Act, Chapter E-13, Revised Statutes of Alberta 1980.

Note 2 Significant Accounting Policies and Reporting Practices

These financial statements have been prepared in accordance with generally accepted accounting principles except that fixed

assets are charged to expenditure at date of acquisition. Fixed assets are shown on the balance sheet at original cost less accumulated depreciation, with a corresponding credit to equity in fixed assets. Depreciation is charged to equity in fixed assets.

Depreciation is provided over the estimated useful life of the assets on the straight-line method at a rate of 33 1/3% for computer equipment and software and 10% for the remaining office equipment.

A statement of changes in financial position is not provided as disclosure in these financial statements is considered to be adequate.

Note 3 Administration Expenses

Office furniture and accommodation expenses incurred in the administration of the Council are borne by the General Revenue Fund and are not reflected in these financial statements.

Note 4 Approval of Financial Statements

These financial statements were approved by management.

***

5.3 PERSONNEL

The Council has 20 permanent salaried positions.

All permanent salaried positions are under the purview of the Public Service Commissioner and the regulations issued by the Personnel Administration Office are applicable. Non-management and non-excluded staff are members of the Alberta Union of Provincial Employees.

The position of Chief Executive Officer remained vacant throughout the year since the resignation of A.D. Crerar in April.

5.4 LIBRARY SERVICES

The responsibilities of the ECA Library are:

1) to provide information and background material to support projects of the Council and its research staff

2) to provide a source of environmental information for the general public

3) to manage and distribute all Environment Council publications.

The Library contains 7,000 books and government documents and subscribes to 87 periodicals and two newspapers. The collection also includes an extensive file of newspaper clippings on environmental matters, maps, and a selection of general reference material.

5.4.1 SERVICES TO THE ECA STAFF

Loans to Council staff (excluding periodicals)	152
Periodical loans to Council staff	194
Reference questions answered	408
Material borrowed from other libraries (interlibrary loans)	420

5.4.2 SERVICES TO THE PUBLIC

Inquiries received by phone, letter, or personal visits	1,161
Interlibrary loans to the public and other agencies	38
Loans of audiovisual material	3
Loans of posters	191

5.4.3 PUBLICATIONS

During the year, the Library was responsible for the distribution of a large number of publications and brochures.

Annual Report 1987	1,061
Reserves for Nature	1,975
Resolving Conflict	1,950
Environment By Design	1,466
Tourism In Alberta	1,151
Energy Conservation	901
Agricultural Considerations	880

Renewable Energy	901
Dinosaurs & Distant Drums	268
Miscellaneous Publications	5,960
Total distributed	16,215

A complete list of Environment Council publications is appended to this report (Appendix E).

The ECA mailing list was revised and updated throughout the year, and consisted of the following:

General list	2,061
Conservation Strategy list	2,423
Media list	444
PAC list	185
Environment Week Association	444
Total addresses at the end of 1988	5,257

Convenient local access to Environment Council information is available at a total of 44 depository libraries or Information Centers located throughout Alberta (see Appendix F). Transcripts of public hearings have a more limited distribution; these may be viewed at the locations marked with an asterisk in Appendix F.

5.4.4 INTERNATIONAL ENVIRONMENTAL POSTER COLLECTION

The Environment Council's collection of environmentally related posters are available for loan to libraries, schools, and environmental exhibits. Two hundred and fifty-two posters have been catalogued into the library collection, and 191 went out on loan during 1988.

5.5 EDITING SERVICES

The hard work on the Alberta Conservation Strategy of the Council and its Public Advisory Committees was reflected this year in the publication of six sector reports. These reports were created entirely in-house with the Council's desktop publishing system.

Also published this year was *Need–To–Know*, a comprehensive discussion of communications for environmental groups. The report comprises the papers presented at the 1987 annual joint meeting of the Council and its advisory committees.

In 1989, we will continue to produce Conservation Strategy sector reports as they are completed.

Due to budget constraints, all reports and newsletters were printed in-house, on an on-demand basis, using the Council's photocopying machine. This in-house publishing has enabled us to keep better control of our inventory of publications, and has proven to be very cost effective for smaller print runs. We anticipate continuing to produce reports and other materials in this way.

5.6 OFFICE AUTOMATION

The Office Automation Committee met several times during the year. The desk-top publishing system has been a great success and is being used by several staff members to produce a wide range of materials. The Committee's discussions focussed on improvements to the system we now have in place. Some of our older equipment is beginning to show its age; however, no new aquisitions were recommended in 1988.

APPENDIX A

INFORMATION PATTERNS FOR ECA ACTIVITIES 1978-88

Publication	No.	Conser-vation	Pollu-tion	Eco-nomics	Admin-istration	Public Health
1988						
Agricultural Considerations	1	•		•	•	
Dinosaurs and Distant Drums	1	•			•	
Energy Conservation	1	•		•		
Environment by Design	1	•		•	•	•
Need-To-Know	1	•		•	•	
Renewable Energy	1	•		•		
Resolving Conflict: A Case Study	1	•			•	
Tourism in Alberta	1	•		•	•	
1987						
Annual Report	1			•		
Forest Land Use Workshop	1	•		•		
Improving Enforcement - CAA/CWA	1		•		•	•
Recycling - Report & Recommendations	2	•	•	•	•	•
Reserves for Nature	1	•			•	
1986						
A.C.S. Information Kit	1	•			•	
Annual Report	1			•		
Environment and Development	1	•		•	•	
E.C.A. - Brochure	1	•			•	
Proceedings - 10th Meeting of C.E.A.C.	1	•			•	
Prospectus for an A.C.S.	1	•				
Public Hearings - Brochure	1	•			•	
Recycling - Societal Perspective	1				•	•
What is a Conservation Strategy?	1	•		•	•	

Publication	No.	Conservation	Pollution	Economics	Administration	Public Health
1985						
Administration of the Clean Air Act	1		•		•	•
Administration of the Clean Water Act	1		•		•	•
Agriculture - Technical Report and Recommendations	1	•	•	•	•	
Annual Report	1			•		
Recycling - Bibliography	1	•	•	•	•	
Recycling - Economic Barriers	1	•		•	•	
Recycling - Garbage to Gold	1	•				
Recycling - Municipal Solid Waste	1				•	
Recycling - Resource Recycling	1	•	•	•	•	
1984						
Acid Forming Emissions	1	•	•		•	•
Agriculture - Summary Report and Recommendations	1	•	•	•	•	
Annual Report	1			•		
1983						
Agriculture - Brochure	1	•				
Agriculture - Protection Mechanisms	1	•			•	
Agriculture - Research & Productivity	1	•		•	•	
Annual Report	1			•		
Municipal Waste as Fuel	1	•	•	•	•	
Wildlife Roadkills	1	•				
1982						
Agriculture - Dryland Salinity	1	•		•	•	
Agriculture - Economics	2	•		•	•	
Agriculture - Fish and Wildlife	1	•		•	•	
Agriculture - Greenhouse Production	1	•		•		
Agriculture - Irrigation	2	•		•	•	
Agriculture - Legislation	1	•			•	
Agriculture - Linear Developments	2	•	•	•	•	
Agriculture - Protection Options	1	•		•	•	
Agriculture - Public Land Management	1	•			•	
Agriculture - Recreation	2	•		•	•	•

Publication	No.	Conservation	Pollution	Economics	Administration	Public Health
Agriculture - Research	1	•		•		
Agriculture - Rural Subdivision	1	•		•	•	
Agriculture - Soil Fertility	2	•	•	•	•	
Agriculture - Terms of Reference	1	•	•	•	•	
Annual Report	1			•		
Attitudes Towards the Environment	1				•	
Environmental Standards	1		•		•	•
Noise - Report & Recommendations	1		•	•	•	•
1981						
Agricultural Land Base	2	•		•	•	
Agriculture - Environment	2	•	•		•	
Agriculture - Planning	2	•			•	
Agriculture - Summerfallow Acreage	2	•		•	•	
Agriculture - Urbanization	2	•		•	•	
Annual Report	1			•		
Reactions to Public Participation Workshop	1				•	
Trace Elements in Coal	1	•	•			•
1980						
Annual Report	1			•		
Hazardous Waste - Administration	1				•	•
Hazardous Waste - Legal Aspects	1		•		•	
Hazardous Waste - Pincher Creek	1					•
Hazardous Waste - Transportation Risk	1					•
Hazardous Waste Background Information	1	•	•		•	•
Hazardous Waste - Report & Recommendations	1	•	•	•	•	•
Noise - Administration & Regulation	1				•	•
Noise - Economic Aspects	1			•		•
Noise - Health Hazard	1					•
Noise - Planning Considerations	1	•				•
Noise - Transportation Noise	1			•		•
Noise Around the Home	1					•
Noise in Alberta	1					•

Publication	No.	Conservation	Pollution	Economics	Administration	Public Health
Noise in the Workplace	1					•
Public Perceptions - Environment	1	•	•	•	•	•
Survey of Groundwater Concerns	1	•	•		•	•
1979						
Annual Report	1			•		
Economics of Beef Production	1	•		•		
Forestry - Report & Recommendations	1	•		•	•	
Noise in the Human Environment	2					•
Oldman - Report & Recommendations	1	•	•	•	•	
Public Participation - Environmental Decisions	1	•			•	
1978						
Annual Report	1			•		
Oldman - Terms of Reference	1	•				
Total	103	60	23	50	59	27

APPENDIX B

PUBLIC ADVISORY COMMITTEE REPRESENTATIVES

(as of December 1988)

Public Advisory Committee on the Environment

Sponsoring Organizations and Representatives

Academic Women's Association ..... Ms. M. Turnell
Alberta Association of Architects ..... Mr. V.G. Kozak
Alberta Association of Canadian Institute of Planners ..... Mr. S. Pragnell
Alberta Association of Landscape Architects . Mrs. L. Daniel
Alberta Association of Municipal Districts and Counties ..... Mr. G. Miller
Alberta Association of Registered Nurses ... Mrs. S. Henderson
Alberta Cancer Board ..... Ms. S. Fincham
Alberta Chiropractic Association ..... Dr. R. Gehrke
Alberta Conservation Tillage Society (ACTS) . Mrs. S. Nelson Pier
Alberta Federation of Labour ..... Mr. D. Moffat
Alberta Fish and Game Association ..... Mr. H. Fauser
Alberta Fish and Game Association ..... Mr. R. Dovell
Alberta Forest Products Association ..... Mr. A. Rytz
Alberta Institute of Agrologists ..... Mr. G. Shaw
Alberta Irrigation Projects Association ..... Mr. R. Renwick
Alberta Lung Association ..... Mrs. D.J. Lewoniuk
Alberta Medical Association ..... Dr. J. MacQuarrie
Alberta Pharmaceutical Association ..... Mrs. J. Roschlaub
Alberta Public Health Association ..... Mr. T. Hodge
Alberta Research Council ..... Dr. L.W. Turchenek
Alberta School Trustees Association ..... Mrs. M. Stephenson
Alberta Snowmobile Association ..... Ms. L. Sherren
Alberta Society of Professional Biologists ... Mr. M. Scott-Brown
Alberta Trappers' Central Association ..... Mr. N. Barber
Alberta Urban Municipalities Association ... Alderman C. Reid
Alberta Veterinary Medical Association .... Dr. W. Cox
Alberta Wheat Pool ..... Mr. H.R. Patching
Alberta Wilderness Association ..... Ms. J. McLean-Hayden
Alberta Women's Institutes ..... Mrs. H. Hallett
Alpine Club of Canada (The) ..... Mr. T. Code
Archaeological Society of Alberta ..... Mr. G.F. Paschen
Association of Professional Engineers, Geologists and Geophysicists of Alberta . Mr. J.E. Staples
Calgary Chamber of Commerce ..... Ms. J. Hodgson
Calgary Local Council of Women ..... Mrs. H. Heacock
Canada West Foundation ..... Dr. D.K. Elton
Canadian Institute of Forestry ..... Mr. T. Williamson
Canadian Institute of Public Health Inspectors (Alberta Branch) ..... Mr. W. Irwin
Canadian Manufacturers' Association ..... Mr. A. Metcalfe
Canadian Meteorological and Oceanographic Society (Alberta Centre) ..... Dr. L. Wojtiw
Canadian Nature Federation ..... Mr. D. Stiles
Canadian Parks and Wilderness Society (CPAWS) (Edmonton Chapter) ..... Dr. G. Swinnerton
(Calgary/Banff Chapter) ..... Ms. B. Beswick
Canadian Petroleum Association ..... Mr. B. Worbets

Canadian Petroleum Association ..... Mr. D.F. Porter
Canadian Society of Environmental Biologists
(Alberta Chapter) ..... Ms. R. Usher
Christian Farmers Federation ..... Mr. A. Kolk
Citizens for Public Justice ..... Mr. W. Koning
City of Airdrie ..... Mr. R. Davidson
City of Calgary ..... Ms. J. Lewin
City of Camrose ..... Dr. M. Muc
City of Drumheller ..... Mr. R. Romanetz
City of Edmonton ..... Mrs. P. Wight
City of Fort McMurray ..... Alderman B. Gendreau
City of Fort Saskatchewan ..... Alderman D. Petroski
City of Grande Prairie ..... Mr. E.G. Radbourne
City of Leduc ..... Alderman N. Hartfelder
City of Lethbridge ..... Alderman W.R. Cousins
City of Lloydminster ..... Alderman D. Arthur
City of Medicine Hat ..... Mr. J. Hirsch
City of Red Deer ..... Alderman G. Surkan
City of Wetaskiwin ..... Mr. N. Carlson
Coal Association of Canada ..... Mr. Phillip Lulman
Cold Lake Community Advisory Committee . Mr. D. Appleby
Community Planning Association of Alberta . Ms. A. Parkinson
Consumers' Association of Canada ..... Mrs. E.S. Hunter
Consumers' Association of Canada ..... Mrs. M. Lutz
Council of Alberta Rural Ratepayers'
Associations ..... Mrs. A. Hendry
County of Strathcona ..... Mr. K. Gesell
Dryland Salinity Control Association ..... Mr. W.M. Norris
Ducks Unlimited Canada ..... Mr. B. Calverley
Edmonton Chamber of Commerce ..... Mr. D. Mallon
Edmonton Local Council of Women ..... Ms. E.L. Butler
Electric Utility Planning Council ..... Mr. B. Peel
Energy Resources Conservation Board ..... Mr. H.O. Lillo
Entomological Society of Alberta ..... Mr. J.A. Shemanchuk
Federation of Alberta Naturalists ..... Mr. H. Gardner
Foothills Protective Association ..... Mr. C. Blackburn, Jr.
Fort Saskatchewan Regional Industrial
Association ..... Mr. M. Andresen
Health Unit Association of Alberta ..... Mr. H. Pharis
Heavy Crude Council ..... Mr. J. Aplin
Law Society of Alberta ..... Mr. D.R. Thomas
Lloydminster Chamber of Commerce ..... Mrs. J. Sloan
Save Tomorrow Oppose Pollution (STOP) ... Mr. B. Staszenski
Sierra Club of Alberta ..... Mr. H. Zenger
Society for the Protection of Architectural
Resources in Edmonton (SPARE) ..... Ms. W. Lee
Solar Energy Society (Calgary Chapter) .... Dr. J.E. Rapson
Southern Alberta Environmental Group .... Mr. G.R. Stewart
Strathcona Industrial Association ..... Mr. R.J. Gillespie
Swift Fox Conservation Society ..... Mr. C. Schroeder
Trout Unlimited Canada (Alberta Council) .. Dr. B. Dancik
Unifarm ..... Mrs. J. Walter
United Farmers of Alberta
Co-operative Ltd. ..... Mr. C. Fawcett
University Womens' Club of Edmonton
(Canadian Federation
of University Women) ..... Ms. L. Renouf
Urban Development Institute of Alberta .... Mr. F. Markson
Western Barley Growers' Association ..... Mr. H. Craig
Western Stock Growers' Association ..... Mr. E. Jarvis
Wildlife Society of Canada ..... Ms. R. Usher
Women of Unifarm ..... Mrs. M. Newton
YWCA ..... Mrs. R. Robinson

Educational Institutions and Representatives

Athabasca University	Dr. R.G. Holmberg
Canadian Union College	Dr. P. Ramalingam
Cascade Society of Mount Royal College	Mr. G. Ferguson
Concordia College	Dr. S. Dalton
Grande Prairie Regional College	Dr. J. Snyder
Keyano College	Mr. P. Rudiak
Lakeland College — Vermilion Campus	Dr. M.H. Chaudhry
Lethbridge Community College	Mr. P. Herzog
Medicine Hat College	Dr. R. Mutch
Mount Royal College	Dr. K. Cummins
Northern Alberta Institute of Technology	Dr. F. Siddiqui
Olds College	Mr. R.A. Hill
Red Deer College	Mr. G. Fabris
Southern Alberta Institute of Technology	Mr. M. Homan
University of Alberta	Dr. D.J. Whitson
University of Alberta	Mr. M. Henderson
University of Calgary	Mr. W.A. Ross
University of Lethbridge	Dr. J. Harter

Non-Sponsored Members

The current list of unaffiliated members follows:

Mrs. S. Abercrombie
Dr. L. Bakshi
Mr. K.J. Blom
Mrs. D. Broadbent
Mr. W.D. Broughton
Mr. K. Driver
Mr. A.C. Dunkley
Mr. W.A. Flook
Ms. J. Hedenstrom-Hayden
Dr. M. Kostuch
Mr. E. Kure
Mrs. E. Paschen
Dr. K. Pennifold
Mrs. M. Posey
Mr. R.M. Richardson
Mr. W.K. Ross
Dr. R. Scace
Mr. G. Stewart
Dr. J.C. Wood

Science Advisory Committee Members

Dr. C.F. Bentley
Dr. S. Dalton
Dr. W.A. Fuller
Ms. M. Haag
Dr. J. Hackler
Ms. L.P. Horstman
Dr. F. Kozar
Dr. D. Kvill
Dr. R.K. Lane
Dr. P. Mahaffy
Dr. W. Moser
Dr. R.P. Pharis
Dr. W.E. Phillips
Dr. B. Rogers
Dr. R. Swanson
Dr. D. Thompson
Dr. W.H. VandenBorn
Dr. T.S. Veeman
Mr. W. Wishart
Dr. P. Woodard

Environmental Education Advisory Committee Members

Mr. E. Bailey
Mrs. M. Bailey
Mr. B. Batycky
Dr. A. Einsiedel, Jr.
Ms. S. Fast
Mrs. J. Finlay
Dr. J. Godfrey
Ms. D. Griff
Mrs. A. Hendry
Mr. J. Martin
Mr. D. Merrills
Mr. R. Mrazek
Mr. B. Ogston
Ms. Beth Russell
Dr. W. Samiroden
Mr. R. Sweet
Mr. I. Waugh
Mr. B. Wylie
Ms. W. Zelt

APPENDIX C

RESPONSES TO 1987 RESOLUTIONS

RECEIVED
DEC 18 1987
ENVIRONMENT COUNCIL OF ALBERTA

TED J. GRIMM
Mayor of the City of Medicine Hat

580 1st STREET S.E.
MEDICINE HAT, ALBERTA, CANADA
T1A 8E6

14-12-87

Mr. Alistair D. Crerar
Chief Executive Officer
Environment Council of Alberta
8th Floor, Weber Centre
5555 Calgary Trail, Southbound
Edmonton, AB T6H 5P9

Dear Mr. Crerar:

Thank you for the copy of the 1987 resolutions of the Public Advisory Committees to the Environment Council of Alberta and your letter dated December 8, 1987.

I have referred your letter to the appropriate departments for response in time to meet your mid-April, 1988 deadline. It was most interesting that you should have directed my attention to Resolution No. 2 - Sewage Effluent Irrigation which has been of considerable interest during our recent deliberations on various options for secondary sewage treatment. We did considerable preliminary research and debated the economics of the sewage effluent irrigation option. We found that unless there were to be extraordinary sources of funding, the capital and operation costs were unfeasible at this time. In any event, this letter is not intended to be a comprehensive response to the resolution; thus further details on the sewage effluent irrigation option in our community will be directed to you for the PAC's review.

Yours truly,

Ted J. Grimm

TED J. GRIMM
MAYOR

c : Mr. L. R. Thompson
Commissioner of Public Works

City of Lethbridge

OFFICE OF
MAYOR

RECEIVED
MAR 1 1 1988
ENVIRONMENT COUNCIL OF
ALBERTA

December 22nd, 1987

Mr. Alistair D. Crerar
Chief Executive Officer
Environment Council of Alberta
8th Floor, Weber Centre
5555 Calgary Trail, Southbound N.W.
EDMONTON, AB
T6H 5P9

Dear Sir:

RE: SEWAGE EFFLUENT IRRIGATION

In response to your memo of December 8th, 1987 please be advised that the City of Lethbridge has reviewed the potential for utilizing its sewage effluent for irrigation and rejected same as too costly recognizing our treatment facilities are located in the river valley approximately 100 meters below the surrounding flatlands. We do, however, support your efforts to have the Province of Alberta undertake a comprehensive investigation.

Yours faithfully,

David B. Carpenter, C.A.
Mayor

DBC:dgs
CC: City Manager
Engineering Services Manager

Alberta MEMORANDUM

MUNICIPAL AFFAIRS

RECEIVED
JAN 20 1988
ENVIRONMENT COUNCIL OF ALBERTA

FROM Dennis L. Anderson
Minister

OUR FILE REFERENCE

YOUR FILE REFERENCE

TO Mr. Alistair D. Crerar
Chief Executive Officer
Environment Council of Alberta

DATE January 13, 1988

TELEPHONE 427-3744

SUBJECT **Sewage Effluent Irrigation**

With reference to your December 8, 1987, memorandum regarding Resolution Number 2 noted above, I offer the following.

While sympathizing with the concerns of the Environment Council of Alberta, it is inappropriate for me to respond to this resolution at length. Prime responsibility for the matters raised in the background to the resolution is borne by other provincial government departments. My department does not fund sewage treatment and disposal by municipalities (although municipalities may allocate portions of their municipal assistance grants to such purposes). Furthermore, sewage effluent irrigation is an agricultural practice rather than a land use, and therefore falls outside my department's mandate in respect of land use planning.

In addition, I am aware that this issue has been raised on numerous occasions with the Minister of Environment who has indicated that the use of this irrigation product and method are somewhat limited by costs and feasibility.

In closing may I add that the environmental risks to the citizens of any region in the province are of concern to all, and the approval of the Minister of Environment is a necessary step in this chain of protective approval with which I strongly agree.

Dennis L. Anderson
Minister

MAFP 82 (87/05)

Minister of
COMMUNITY AND OCCUPATIONAL HEALTH
402 Legislature Building, Edmonton, Alberta, Canada T5K 2B6 403/427-2331

RECEIVED
JAN 20 1988
ENVIRON.

January 14, 1988

Mr. Alistair D. Crerar
Chief Executive Officer
Environment Council of Alberta
8th Floor Weber Centre
5555 Calgary Trail Southbound, NW
EDMONTON, Alberta
T6H 5P9

Dear Mr. Crerar:

Many thanks for letting me know about the resolutions passed at the 17th Annual Joint Meeting of the Environment Council of Alberta and its Public Advisory Committee.

As you know, the two resolutions you brought to my attention fall under the jurisdiction of the Minister of Environment, the Honourable Ken Kowalski. I've discussed these resolutions with Mr. Kowalski and understand that his Department is already cooperating with the City of Calgary on the type of comprehensive investigation that you recommend for sewage effluent irrigation. As well, the Environment Department is actively working on a solution for the disposal of waste plastic pesticide containers. Officials of our Department are being consulted in both areas and I am in support of Mr. Kowalski's efforts to address these two problems.

Again, thanks for keeping me up-to-date on the activities of your Council.

Yours sincerely,

Jim Dinning

cc: Honourable Ken Kowalski
Minister of Environment

RECEIVED
JAN 2 0 1988
ENVIRONMENT COUNCIL OF ALBERTA

Office of the Mayor

January 15, 1987

The Environment Council of Alberta
8th Floor, Weber Centre
5555 Calgary Trail, Southbound, N.W.
EDMONTON, Alberta
T6H 5P9

ATTENTION: Mr. Alistair D. Crerar
Chief Executive Officer

Dear Sir:

Thank you for your memo dated December 8, 1987 together with attached resolutions.

We would like to make the following comments on resolutions number 1 and 2.

RESOLUTION 1

While we support wholeheartedly the principle of recycling, we would not want to see funding for this issue to be at the expense of more conventional means of solid waste handling. Depending on economic conditions and Provincial funding, recycling is not always economically viable.

RESOLUTION 2

Again, we support in principle the concept of irrigation with sewage effluent. It is not, however, always practical to do so, as certain areas of the Province receive an adequate or more than adequate rainfall each year, and irrigation is not required or economically viable. The City of Red Deer has for many years hauled sludge to farmlands for fertilization of the soil.

....2

P.O. BOX 5008, RED DEER, ALBERTA, T4N 3T4 Telephone 342-8132

A study done in 1978 for The City of Red Deer respecting irrigation with sewage effluent, determined that at that time this method was not practical for Red Deer.

As you are no doubt aware, the Engineering Department of The City of Red Deer is quite interested in the concept of irrigation with sewage effluent, and if that Department and particularly the Director of Engineering could be of assistance, they would be pleased to contribute in whatever way they feel they can.

Sincerely.

R. J. McGHEE
Mayor

PMS/jt

c.c. Director of Engineering

AGRICULTURE

Office of the Minister

324 Legislature Building, Edmonton, Alberta, Canada T5K 2B6 403/427-2137

RECEIVED
FEB 0 3 1988
ENVIRONMENT COUNCIL OF ALBERTA

February 3, 1988

Mr. Alistair Crerar
Chief Executive Officer
Environment Council of Alberta
8th Floor, 5555 Calgary Trail South
EDMONTON, Alberta
T6H 5P9

Dear Mr. Crerar:

Thank you for your memorandum and resolution information of December 8, 1987, regarding Sewage Effluent Irrigation in Alberta.

Our government has supported the development and operation of such projects as municipal wastewater disposal through irrigation and agricultural production in the province over the last 20 years or so. This support has come in the form of associated investigative and research work as well as in monetary support for the capital development of these projects. In addition, some supportive research analysis of operating projects has also been carried out by Agriculture Canada.

The regulatory authority for these effluent projects rests with Alberta Environment. Under the jurisdiction of the Water Resources Act and the Clean Water Act, Alberta Environment provides initial site investigation of the projects, authorizes their development, cost shares development funding and provides regulatory functions thereafter. Alberta Agriculture provides technical support assistance through agriculture feasibility input to the licensing of these projects as well as to irrigation system development and management guidance to the municipal authority and/or irrigator.

In Alberta, there are presently some 25 operating effluent irrigation disposal systems ranging in size from just a few acres to as much as 650 acres. These projects are primarily located south of Edmonton with the majority operating within the semi-arid region of southern Alberta. Some of these projects serve to dispose of just part of their sewage discharge through such land treatment programs while others apply the majority, and in a few cases all of their community's effluent through irrigation systems. While the local authority often maintains responsibility for the works of the irrigation disposal system and for the treatment land required, in other situations the municipality

either takes on the total agricultural operation or simply provides the adequately pre-treated effluent to adjacent agricultural producers and land-owners. In all cases Alberta Environment determines water suitability, soil irrigability and other constraining factors such as groundwater conditions and buffer zones. The irrigation effluent, as well sometimes as the application system and/or land is provided by the municipality under short or long term agreements or leases.

Presently, only those commodities not used for direct human consumption are approved for production under effluent irrigation. These include small grains and non-row-crop forages to be used as livestock feed or as irrigated pasture. In addition, in a few cases, municipal effluent is used for golf course watering. Regardless of the use, Alberta Environment regulations and guidelines control the post-irrigation harvesting, grazing of or access to the irrigated commodity.

Although effluent irrigation provides a means of tertiary sewage treatment, the present level of secondary treatment by municipal facilities in the province is such that the nutrient value of the effluent is reduced. Nonetheless, Alberta Agriculture supports the development of these projects, where feasible, as another multi-purpose use of water, in line with our resource conservation and management emphasis.

I have enclosed a copy of Alberta Environment's "A Practical Guide to Municipal Wastewater Irrigation" which may provide some further detail for you. If we can provide further assistance in regards to your informational needs, please do not hesitate to contact us.

Yours sincerely,

Peter Elzinga
Minister of Agriculture

encl.

c.c. Hon. S. Cripps
Hon. K. Kowalski
Hon. N. Crawford

APPENDIX D

LOG OF NEWS RELEASES

January 5, 1988 — Conservation Strategy To Be Discussed By Naturalists

What does it profit us to win the whole world, and yet lose all of Earth's riches? If what we lose is the cornucopia of Earth's genetic diversity, says the Federation of Alberta Naturalists, there won't be profits anymore for anyone. EARTH — AND ALL ITS RICHES, a symposium on preserving genetic diversity, will be held by the Federation on Saturday, January 30th, at the Capri Centre in Red Deer.

April 7, 1988 — Crerar Leaves ECA, To Lead New Pakistani Conservation Effort

Today, Mr. Alistair D. Crerar has announced that he will be leaving his position as Chief Executive Officer of the Environment Council of Alberta to become the Co-ordinator of the Pakistani National Conservation Strategy, with an office in Islamabad, Pakistan. Mr. Crerar says his leave taking from the ECA is effective April 22, 1988. This new post, says Mr. Crerar, is "one of the most interesting and challenging roles in the environmental field anywhere in the world. As such, I could not turn it down."

April 11, 1988 — Word Awaited On Picking Of Crerar's Successor

The Environment Council's chief volunteer is anxiously awaiting word from Alberta's Environment Minister on the process he will use to select a successor to Alistair Crerar. "I'm concerned about the timing, too." says Jean Sloan, of Lloydminster, who chairs the ECA's Co-ordinating Committee this year.

"All the members of ECA's advisory committees are dead set on establishing a conservation strategy for Alberta by 1990," she says. "We think the best way to get that is through ECA public hearings, and the Minister has said he will be making an announcement soon. Since the ECA's chief executive officer is also the vice chair of ECA public hearings, quick action on the appointment of a successor to Mr. Crerar is vitally important."

April 12, 1988 — Environmental Advisors Seek Stronger Forest Project EIA

An Environment Council advisory committee has asked Alberta Environment Minister Ken Kowalski to consider five recommendations it feels would, if implemented, strengthen and improve Alberta's environmental impact assessments of new forest industry projects, like Daishowa's pulp mill near Peace River.

Pollution Sub-Committee chair Wendell Koning, of Calgary, says these recommendations were made in response to reports that Daishowa had already begun site clearing operations without fixing deficiencies in its EIA.

"We are concerned about the status of Daishowa's activities in clearing the site," says Koning. Is Daishowa bypassing provincial EIA procedures here? If so, how is that possible?"

May 6, 1988 — Inter-Agency Agreement Shares Public Input Analysis Software

Officials of the Canadian Parks Service are adopting the brief analysis system developed and used by the Environment Council of Alberta to sift through all the information it receives during its public hearings. Earlier this year, when members of Canadian Parks Service staff were introduced to the ECA's personal computer based system, they found it seemed to fit their needs very well. Their interest has also prompted the ECA to make this innovative program available to the interested public. "There is a great similarity between our agencies in the type of data collected and the analysis required," says Steve Kun, Director General of the Canadian Parks Service's Western Region, in Calgary. "To date, we have been collating and analyzing our data base manually," he says, but now "the change over to a computerized system" is possible.

May 31, 1988 — ECA Dissension Story Denied By Head Advisor

Dissension in the ranks of the Environment Council of Alberta (ECA) has been denied by the head of the Council's advisory committees. "We have controversies all the time, but to say we have dissension is absolutely ridiculous," says Jean H. Sloan, chairman of the ECA's Co-ordinating Committee.

She was replying to a story in a Calgary newspaper last week which claimed that Alberta's Environment Minister Ken Kowalski believed the ECA was "racked with dissension." Sloan says she called the Minister's office immediately, and was told the comments in the story were "right off the wall!"

June 16, 1988 — Hitting Alberta's Tourism Targets Requires An Attitude Shift

Tourism in Alberta, the fourth in a series of discussion papers being published by the Environment Council of Alberta (ECA) for the Alberta Conservation Strategy project, has now been released to the public.

"Releasing this discussion paper just now is very timely," says Pamela Wight, the tourism consultant who prepared it. "The government is talking about a tourism target of $10 billion earned annually in Alberta by the year 2000. I think this discussion paper can help put that target into perspective, because sustainable development in the tourism industry will be a vital and challenging part of any future conservation strategy in this province. Personally, I am excited by the government's vision," says Wight. "It's the kind of commitment to the future of tourism in this province that many of us who are close to the industry feel is justified." Wight feels, however, that ingrained attitudes will need to change.

November 30, 1988 — Alberta Conservation Strategy Implementation

Can we get a bigger bang for the buck in the management of our resources? That question forms the theme, Implementation Through Co-operation, for the 1988 Annual Joint Meeting of the Environment Council of Alberta with its advisory committees to be held December 1 and 2. Many resource management initiatives are being implemented in Alberta by a number of different agencies. And although certain aspects of such programs may help conserve other untargetted resources, might some of these programs also be at cross-purposes? Answers to that question are needed before implementing a conservation strategy is begun in Alberta.

APPENDIX E

LIST OF PUBLICATIONS

December 1988

BROCHURES

Environment Council of Alberta. July 1983.
Public Hearings.

LEGISLATION

The Environment Council Act. Chapter E-13, R.S.A. 1980.

ANNUAL REPORTS

Environment Council Annual Report, 1982.
Environment Council Annual Report, 1983.
Environment Council Annual Report, 1984.
Environment Council Annual Report, 1985.
Environment Council Annual Report, 1986.
Environment Council Annual Report, 1987.

PUBLICATIONS RELATED TO PUBLIC HEARINGS

Erosion of Land in Northwestern Alberta.

Anthropogenic Erosion, Swan Hills, Alberta. (2nd edition) January 1976.
Report and Recommendations. November 1976.

Continued Public Hearings into the Flow Regulation of the Red Deer River.

Terms of Reference and Background Information. December 1976.
Report and Recommendations. June 1977.

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Terms of Reference and Background Information. September 1977.
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APPENDIX F

LOCATION OF INFORMATION CENTRES

Banff

The Banff Centre
Box 1020
Banff, Alberta
T0L 0C0

Blairmore

Blairmore Municipal Library
Blairmore, Alberta
T0K 0E0

Bonnyville

Bonnyville Municipal Library
Box 1438
Bonnyville, Alberta
T0A 0L0

Brooks

Brooks Pubic Library *
Box 1149
Brooks, Alberta
T0J 0J0

Calgary

Calgary Public Library *
Business and Science
616 McLeod Trail SE
Calgary, Alberta
T2G 2M2

Calgary Regional Planning Commission
4303 - 11 Street SE
Calgary, Alberta
T2G 4X1

Collection Room *
Dept. of Geography
University of Calgary
2920 - 24 Avenue NW
Calgary, Alberta
T2N 1N4

Environmental Design Unit *
8th Floor, Library Tower
University of Calgary
2920 - 24 Avenue NW
Calgary, Alberta
T2N 1N4

The Library *
Mount Royal College
4825 Richard Road SW
Calgary, Alberta
T3E 6K6

Resource Centre Office
Faculty of Evironmental Design
Room 1003A
Earth Science Building
University of Calgary
2920 - 24 Avenue NW
Calgary, Alberta
T2N 1N4

Camrose

Camrose Public Library
4863 - 50 Street
Camrose, Alberta
T4V 0P6

Canmore

Canmore Public Library
Box 460
Canmore, Alberta
T0L 0M0

Carstairs

Carstairs Library
Box 128
Carstairs, Alberta
T0M 0N0

Coronation

Coronation Community Library
Coronation School
Coronation, Alberta
T0K 1C0

Drumheller

Drumheller Public Library *
Box 1599
Drumheller, Alberta
T0J 0Y0

Edmonton

Alberta Environment Library *
14th Floor, Oxbridge Place
9820 - 106 Street
Edmonton, Alberta
T5K 2J6

Alberta Legislature Library
Room 216
Legislature Building
Edmonton, Alberta
T5K 2B6

Edmonton Regional Planning Commission Library
602, 10025 - 106 Street
Edmonton, Alberta
T5J 1G6

Government Publications *
University of Alberta Library
Edmonton, Alberta
T6G 2J8

Edson

Edson Public Library
Box 249
Edson, Alberta
T0E 0P0

Fort McMurray

Fort McMurray Public Library

* Has a complete set of proceedings of public hearings.

9912A Franklin Avenue
Fort McMurray, Alberta
T9H 2K6

Grande Prairie

Grande Prairie Public Library
10032 - 100 Avenue
Grande Prairie, Alberta
T8V 0V3

Grande Prairie Regional College Library *
10726 - 106 Avenue
Grande Prairie, Alberta
T8V 4C4

South Peace Regional Planning Commission *
Resource Centre
200 Windsor Court
9835 - 101 Avenue
Grande Prairie, Alberta
T8V 0X6

Hinton

Hinton Municipal Library
Box 818
Hinton, Alberta
T0E 1B0

Lacombe

Parkland Regional Library
Alberta Agriculture Building
Lacombe, Alberta
T0C 1S0

Lacombe Public Library
Lacombe, Alberta
T0C 1S0

Lethbridge

Buchanan Resource Centre *
Lethbridge Community College
Lethbridge, Alberta
T1K 1L6

Government Documents Office
University of Lethbridge Library
Lethbridge, Alberta
T1K 3M4

Lethbridge Public Library *
810 - 5th Avenue S
Lethbridge, Alberta
T1J 4C4

Library
Oldman River Regional Planning Commission
905 - 4th Avenue S
Lethbridge, Alberta
T1J 4E4

Olds

Olds Municipal Library
Box 968
Olds, Alberta
T0M 1P0

Peace River

Peace River Municipal Library
9807 - 97 Avenue
Peace River, Alberta
T0H 2X0

Red Deer

Red Deer Public Library *
4818 - 49 Street
Red Deer, Alberta
T4N 1T9

Red Deer Regional Planning Commission Library *
2830 Bremner Avenue
Red Deer, Alberta
T4R 1M9

Reader's Service Librarian
Red Deer College Library
56 Avenue & 32 Street
Red Deer, Alberta

Sherwood Park

County of Strathcona Municipal Library
Government Documents Section
2001 Sherwood Drive
Sherwood Park, Alberta
T8A 3J4

Spruce Grove

Spruce Grove Public Library
Box 2759
Spruce Grove, Alberta
T0E 2C0

Vegreville

Vegreville Public Library
Box 129
Vegreville, Alberta
T0B 4L0

Vermilion

Lakeland College Library *
Vermilion, Alberta
T0B 4M0

Vermilion Public Library
Box 476
Vermilion, Alberta
T0B 4M0

Westlock

Westlock Municipal Library
Box 1198
Westlock, Alberta
T0G 2L0

Wetaskiwin

Battle River Regional Planning Commission Library *
5014 - 48 Avenue
Wetaskiwin, Alberta
T9A 0M9

Whitecourt

Whitecourt Public Library *
Box 150
Whitecourt, Alberta
T0E 2L0

* Has a complete set of proceedings of public hearings.